

# IMPLEMENTING POLICIES TO RESTRICT FOOD MARKETING



## A REVIEW OF CONTEXTUAL FACTORS



World Health  
Organization



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Implementing policies to restrict food marketing: a review of contextual factors

ISBN 978-92-4-003504-1 (electronic version)

ISBN 978-92-4-003505-8 (print version)

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**Suggested citation.** Implementing policies to restrict food marketing: a review of contextual factors. Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO.

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Design and layout by Ms Sue Hobbs of minimum graphics.

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# Acknowledgements

This review of contextual factors on policies to protect children from the harmful impact of food marketing was led by Dr Katrin Engelhardt, of the World Health Organization (WHO) Unit of Safe, Healthy and Sustainable Diet, Department of Nutrition and Food Safety (NFS/CC Healthy Diet). Ms Dorit Erichsen, NFS/CC Healthy Diet, WHO, collected, reviewed and synthesized the evidence, and prepared the first draft of the report. Mr Tomas Allen, Librarian, WHO, reviewed the search protocol and supported the search for the factor on values. Comments on the protocol and the search strategy for the factor on equity and human rights were provided by Ms Rebekah Thomas Bosco, WHO Guideline Review Committee Secretariat. Comments on the search strategy for government searches were provided by Professor Celeste Naude, Associate Professor, Centre for Evidence-based Health Care, Division of Epidemiology and Biostatistics, Stellenbosch University, South Africa, and Co-Director Cochrane Nutrition; Professor Eva Rehfues, Chair of Public Health and Health Services Research, Ludwig-Maximilians-University, Germany; and Dr Elie Akl, Professor of Medicine, American University of Beirut, Lebanon. Ms Ruby Brooks, NFS/CC Healthy Diet, WHO, conducted the searches for government reports and supported the finalization of the review.

The review was prepared as part of the required process for WHO guideline development. It was presented to the WHO Nutrition Guidance Expert Advisory Group (NUGAG) Subgroup on Policy Actions at its second meeting, in December 2019.

Technical editing of the review was undertaken by Dr Andina Faragher at Biotext Pty Ltd.

# Abbreviations

BMI	body mass index
CRC	Convention on the Rights of the Child
DALY	disability-adjusted life year
EDNP	energy-dense, nutrient-poor
EU	European Union
FNAB	food and non-alcoholic beverage
FOPL	front-of-pack labelling
GRADE	Grading of Recommendations Assessment, Development and Evaluation
HALY	health-adjusted life year
HFSS	high fat, sugar and salt
HIC	high-income country
LMIC	low- and middle-income country
NCD	noncommunicable disease
NGO	nongovernmental organization
NUGAG	Nutrition Guidance Expert Advisory Group
OECD	Organisation for Economic Co-operation and Development
PPP	purchasing power parity
QALY	quality-adjusted life year
SES	socioeconomic status <sup>1</sup>
SSB	sugar-sweetened beverage
UN	United Nations
WHO	World Health Organization

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<sup>1</sup> “Socioeconomic status” is used as a synonym for “socioeconomic position”, “socioeconomic strata” and “socioeconomic group”, which were all terms used in the identified literature.



# Executive summary

Healthy dietary practices starting early in life are the foundation for good nutrition, health and development during childhood and beyond. Yet, unhealthy diets are a leading global public health risk, contributing to a rise in unhealthy weight gain and noncommunicable diseases (NCDs), including diabetes, cardiovascular disease, stroke and cancer.

Governments play a leading role in reducing the burden of diet-related NCDs, addressing malnutrition in all its forms and promoting healthy diets. In 2014, the Second International Conference on Nutrition emphasized the importance of improving the food environment, which plays a critical role in shaping people's diets, including through policy actions.

The current food environment exposes consumers to powerful food marketing, predominantly of foods that undermine healthy diets, and to inconsistent and often misleading nutrition labelling. Enabling consumers to make healthier dietary choices therefore requires creating a food environment that promotes a healthy diet. Such a food environment includes policies that protect children from the harmful impact of food marketing. These policies are implemented within complex systems (including the food system) that are largely country specific. They are affected by each country's political, legal, economic, cultural and ethical contexts.

This review provides contextual information for policies that protect children from the harmful impact of food marketing. This information was considered by the World Health Organization (WHO) Nutrition Guidance Expert Advisory Group (NUGAG) Subgroup on Policy Actions when formulating the WHO guideline on policies to protect children from the harmful impact of food marketing, and moving from evidence to policy recommendations. The factors considered in this review are:

- Factor 1 – values;
- Factor 2 – resource implications, including the costs and cost-effectiveness of interventions;
- Factor 3 – equity and human rights;
- Factor 4 – acceptability, reflecting the perspectives, attitudes and opinions of consumers, government and industry, and the support of these stakeholders for marketing policies; and
- Factor 5 – feasibility, focusing on the feasibility of developing, implementing, administering, monitoring and evaluating marketing policies.

Types of literature to inform the review included systematic reviews, primary studies and grey literature, including government reports. Search terms were defined based on factors proposed in evidence to decision (EtD) frameworks used in the WHO guideline development process, including the GRADE (Grading of Recommendations Assessment, Development and Evaluation) EtD framework and the WHO-INTEGRATE EtD framework. Only literature published in English was included, and the search was restricted to publications after 2004.

A total of 244 publications were included in the review, the majority for Factors 4 (acceptability;  $n = 118$ ), 3 (resource implications;  $n = 59$ ) and 1 (values;  $n = 58$ ). The majority of publications were identified from high-income countries (HICs).

For evidence identified on **values** towards health outcomes, there was some variability in relation to values about body weight status among study populations. In HICs, overweight and obesity were generally perceived as a serious health problem. Women were more likely than men to perceive

overweight and obesity (especially childhood obesity) as a serious health problem, as were people of lower socioeconomic status (SES) compared with their higher SES counterparts. In contrast, in many studies from low- and middle-income countries (LMICs), overweight and obesity were perceived as indicating good health or interpreted as “normal weight”. However, in some countries that have perceived overweight and obesity as indicating good health, values are changing, and normal weight body mass index is increasingly considered healthy. In contrast to values about body weight status, there was no variability in values about diet-related NCDs, or dental caries and erosion in children, which were perceived negatively in all identified studies. Limited information was identified on the potential impact of food marketing on values or whether consumers value “non-misleading” information.

Evidence on the **resource implications** of policies to protect children from the harmful impact of food marketing was identified in modelling studies and impact assessments. All identified modelling studies found that such policies would be cost-effective over the long term (generally after 50 years). The expected costs of such policies, expected health gains, expected healthcare cost savings and cost-effectiveness ratios differ depending on country context, and the design and regulatory nature of policies.

Policies to protect children from the harmful impact of food marketing appear to be in accordance with **human rights** standards. Not protecting children from the harmful impact of food marketing may jeopardize the fulfilment of the Convention on the Rights of the Child, including in relation to Article 24 (the right to health) and Article 17 (protection from material injurious to well-being). The Committee on the Rights of the Child has also noted that targeted and age-inappropriate digital marketing should be regulated to prevent exposure of children to “the promotion of unhealthy products, including certain food and beverages”. Special Rapporteurs on the right of everyone to the enjoyment of the highest attainable standard of health and the right to food have also emphasized the need for regulation of marketing directed towards children.

Limited evidence on the impact on **health equity** of policies to protect children from the harmful impact of food marketing was identified. However, research in HICs shows that children of lower SES are more exposed to food marketing than children of higher SES, and this can lead to or worsen health inequities. As such, policies to protect children from the harmful impact of food marketing can be expected to limit health inequities.

Evidence identified on **acceptability** showed that acceptability of policies to protect children from the harmful impact of food marketing varied greatly by stakeholder. The existence of such policies, or national action plans that recommend implementation of such policies, indicates acceptability to government and policy-makers. Evidence identified from HICs indicates that policies to protect children from the harmful impact of food marketing are largely acceptable to the public; there was a lack of evidence from LMICs. Industry generally opposed government-led restrictions, but offered voluntary self-regulatory policies as an alternative. Limited evidence was found relating to environmental acceptability.

The existence of policies in some countries to protect children from the harmful impact of food marketing points to their **feasibility**, although many countries are yet to develop or implement such policies. Evidence identified on feasibility showed that facilitators of the development and implementation of policies include strong political leadership, supporting evidence, intersectoral collaboration and community support. Barriers to development and implementation include complexity of regulatory processes, conflicting interests, a lack of financial and human resources, industry interference, a weak evidence base, and ambiguous categorization of, or lack of criteria for, food and non-alcoholic beverages (FNABs) for which marketing is to be restricted or banned. Facilitators of monitoring and enforcement include clear guidelines and protocols, independent

monitoring, transparency, and monetary penalties. Barriers to monitoring and enforcement include a lack of transparency and accountability, conflicting interests in reporting of compliance, methodological difficulties, and inadequate human and financial resources.

The review of contextual factors showed some variability in resource implications, acceptability and feasibility of developing and implementing policies to protect children from the harmful impact of food marketing. Acknowledging that most of the identified information is from high-income and English-speaking countries, results suggest the need to consider the local context, including the regulatory and political environment, when developing and implementing policies to protect children from the harmful impact of food marketing. Overall, effective implementation of such policies could contribute to achievement of the right to health, a core WHO value.



# Background

Nutrition during childhood and adolescence is key to ensuring optimal growth, health and well-being during childhood and beyond (1–3). Healthy dietary practices – the foundation for good nutrition – are initiated early in life. Their impact on healthy growth during childhood is seen in rapid growth spurts. They also have long-term health impacts, including preventing noncommunicable diseases (NCDs) later in life. As well, they have an intergenerational impact through ensuring that mothers, particularly those who are adolescent girls, have an optimal nutritional status (1, 4).

Unhealthy diets are a leading global public health risk, contributing to a rise in unhealthy weight gain and NCDs, including diabetes, heart disease, stroke and cancer (5). NCDs now account for about 70% of all deaths globally (6). The dietary risks cluster<sup>1</sup> results in more than 10 million deaths from NCDs per year. It is responsible for 16.45% of all disability-adjusted life years (DALYs) lost to NCDs and 10.2% of DALYs lost to all causes worldwide.<sup>2</sup> Overweight and obesity in childhood is one of the most prominent global public health challenges today. Virtually no progress has been made in reducing the spread of overweight in more than 15 years (7). Globally, 38.3 million children under the age of 5 years are estimated to be overweight, and 36% of these children live in low- and middle-income countries (7). These numbers escalate by an order of magnitude in the age group 5–19 years: 337 million children in this age group were estimated to have overweight or obesity in 2016 (8). At the same time, 47 million children under 5 years of age are wasted, and 144 million are stunted (7).

Governments play a leading role in reducing the burden of diet-related NCDs, addressing malnutrition in all its forms and promoting healthy diets, including through policy actions (9, 10). The Second International Conference on Nutrition, held in 2014, emphasized the importance of improving the food environment, which shapes norms and values of food consumption, through the ways food is labelled, marketed and provided (11, 12). In the current food environment, dietary patterns have shifted, and people are consuming more foods high in energy, saturated fats, trans-fatty acids, free sugars or salt. Many people do not eat enough dietary fibre such as that provided by fruit, vegetables, whole grains and legumes (13). The current food environment exposes consumers to powerful food marketing, predominantly of foods that undermine healthy diets (14, 15), and to inconsistent and often misleading nutrition labelling (16). It is timely to implement policy actions that contribute to creating a food environment that promotes and enables healthy diets for all.

To support Member States in developing and implementing food and nutrition-related policy measures, as recommended by the Framework for Action from the Second International Conference on Nutrition (11, 12), the World Health Organization (WHO) Department of Nutrition and Food Safety started work to develop evidence-informed guidelines on policies to protect children from the harmful impact of food marketing.

As a first step in this process, the WHO Department of Nutrition and Food Safety established a guideline development group: the WHO Nutrition Guidance Expert Advisory Group (NUGAG) Subgroup on Policy Actions in 2018. Priority areas for policy guidelines included policies to protect children from the harmful impact of food marketing, nutrition labelling policies, fiscal and pricing policies, and school food and nutrition policies.

<sup>1</sup> The “dietary risks cluster” includes diets that are low in whole grains, fruit, nuts and seeds, vegetables, fibre, legumes, polyunsaturated fatty acids, calcium or milk, and/or are high in sodium, trans-fatty acids, processed meat, red meat or sugary drinks (Global Burden of Disease risk factors).

<sup>2</sup> Global Burden of Disease statistics, 2017

A 2009 review on “The extent, nature and effects of food promotion to children” commissioned by WHO found that food marketing<sup>1</sup> has an impact on nutrition knowledge, food preferences and consumption patterns, and that food products promoted represent a “very undesirable dietary profile with heavy emphasis on energy dense, high fat, high salt and high sugar foods” (14). Children are highly susceptible to all food marketing (17). Most children under 5 years of age cannot distinguish television advertising from regular programming, and children under 8 years of age believe what they see – they do not have the ability to understand its persuasive intent (18). Children are a major market force, with an increasing disposable income in their own right (12). A scoping review on food marketing commissioned by WHO (19) concluded that there is considerable evidence that exposure to food marketing negatively affects food preference, food choice and food intake.

Despite numerous calls to action<sup>2</sup> to protect children from the harmful impact of food marketing by reducing the power of marketing and exposure to it, children continue to be exposed to food marketing (20). Progress to protect children has been slow. The Noncommunicable Diseases Progress Monitor 2017 showed that very few countries implement measures to restrict food marketing to children. The second global nutrition policy review, undertaken in 2016–2017, reported that 30% of the 142 countries that responded to a question on restricting food marketing to children had some measures. However, legal instruments and their contents varied greatly across the responding countries. Measures reported for restricting marketing included guidelines or codes (voluntary or mandatory); few were integrated into national law.

Developing a more robust, evidence-informed policy guideline through the WHO guideline development process implemented since 2010 will help more countries to put in place effective actions to protect children from the harmful impact of food marketing.

The process for developing the WHO guideline on policies to protect children from the harmful impact of food marketing follows the *WHO handbook for guideline development* (21) (the WHO Handbook).

The WHO Handbook requires that, when developing a guideline and its recommendations, explicit consideration must be given to decision criteria (i.e. contextual factors) when moving from the evidence on the impact of interventions to recommendations; these contextual factors may affect the direction and strength of the recommendations. They include equity, human rights, resource implications, acceptability of the policy to the various stakeholders, and feasibility of adopting the recommendations, including the availability of infrastructure and mechanisms necessary for implementation, enforcement, monitoring and evaluation (22). The NUGAG Subgroup on Policy Actions, at its first meeting in December 2018, therefore requested reviews of contextual factors to be conducted for all policy guidelines in addition to systematic reviews on the effectiveness of the policy measure. This is because policy measures to promote healthy diets are implemented in complex systems (including the food system), which are country specific and unique to the interplay of each country’s contextual features. Contextual features are shaped and defined within each country’s political, legal, economic, cultural and ethical context.

The factors considered in these reviews include those outlined in the WHO Handbook: priority of the problem, values, resource implications, equity and human rights, acceptability, feasibility, and balance of benefits and harms (23). The reviews also include relevant subcriteria of the WHO-

<sup>1</sup> In this review, food marketing includes marketing of both foods and non-alcoholic beverages.

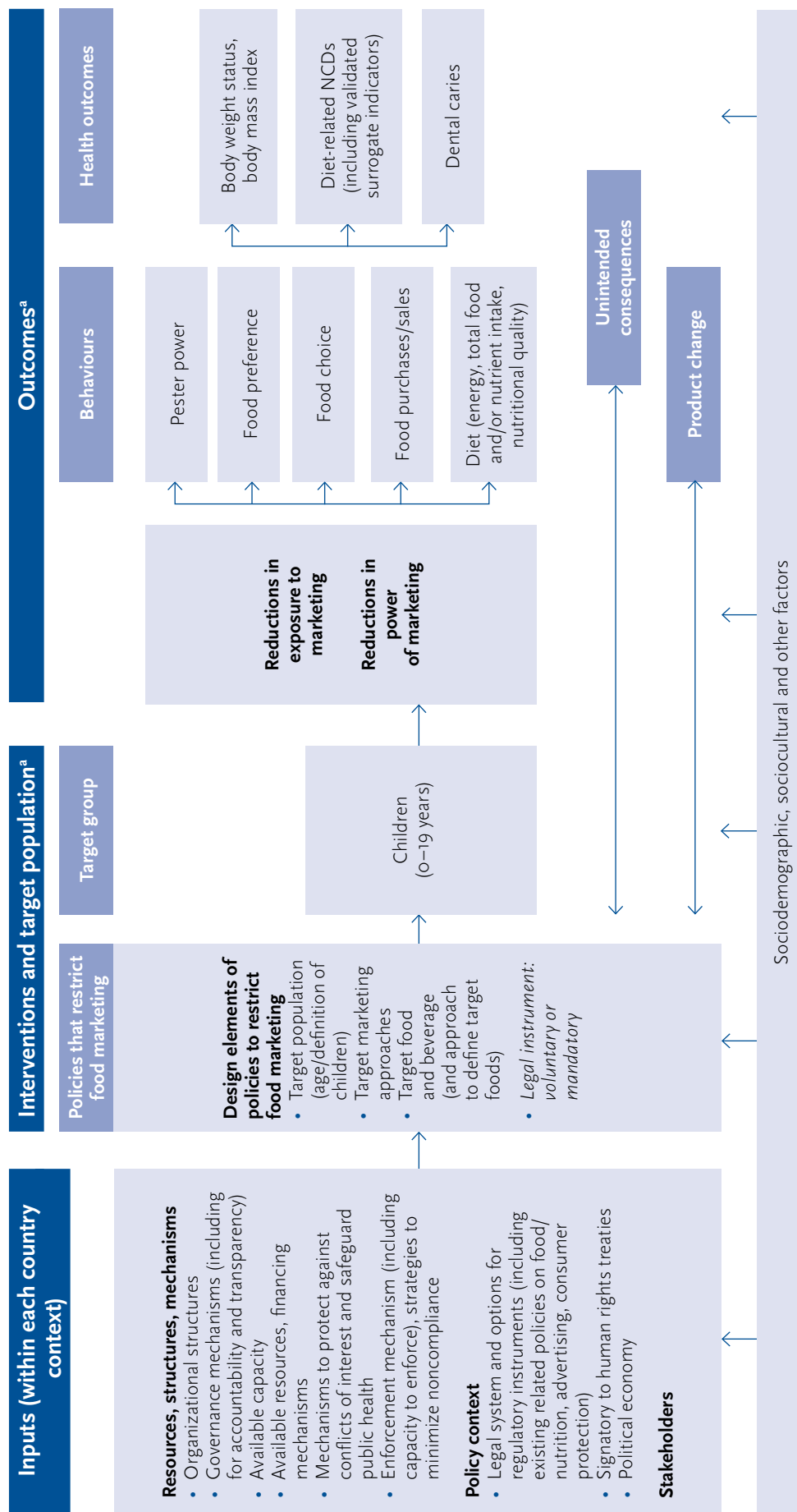
<sup>2</sup> Calls to action include the WHO Global Strategy on Diet, Physical Activity and Health (2004); resolution WHA63.14 of the World Health Assembly endorsing the Set of Recommendations on the Marketing of Foods and Non-Alcoholic Beverages to Children (2010); *A framework for implementing the set of recommendations on the marketing of foods and non-alcoholic beverages to children* (2012); the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition (2014); the Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 (2013); and the report of the Commission on Ending Childhood Obesity (2016).

INTEGRATE evidence to decision framework (24) (e.g. the impact of the policy action on, or the policy action's interaction with, existing health and food systems).

A logic model was developed to conceptualize the complexity of policies to protect children from the harmful impact of food marketing and to visualize the range of contextual factors that influence a policy's impact on the outcomes of interest (Fig. 1).

The overall aim of this review was to search for, identify, summarize and present information on the impact of contextual factors on development and implementation of policies to protect children from the harmful impact of food marketing.

Fig. 1. Logic model depicting pathways from policies to protect children from the harmful impact of food marketing to behavioural and health outcomes



<sup>a</sup> Interventions, target population and outcomes shown in the figure are those prioritized by the members of the WHO Nutrition Guidance Expert Advisory Group (NUGAG) Subgroup on Policy Actions in formulating the research question for the evidence review to inform the guideline on policies to protect children from the harmful impact of food marketing.



# Methodology

The review of contextual factors for policies to protect children from the harmful impact of food marketing was conducted in line with the requirements of the WHO guideline development process, taking into consideration the complexity of the policy interventions (23, 25). Using best-practice methodologies for systematic reviews, rapid reviews and scoping reviews, the review process sought to respect the key principles of knowledge synthesis. These include a clear statement of objectives, predefinition of eligibility criteria, assessment of the validity of findings, and systematic presentation and synthesis of results.

## Framework and guidance questions

A framework was developed to guide the review process (Annex 1). This was based on the guidance in the WHO Handbook to consider social determinants of health in the guideline process (22), the relevant decision criteria listed in Table 10.1 of the WHO Handbook (23), and discussions at the first meeting of the NUGAG Subgroup on Policy Actions (on 11–14 December 2018 in Geneva, Switzerland). The review for policies to protect children from the harmful impact of food marketing includes all factors (and criteria) listed as relevant for determining the direction and strength of recommendations in Table 10.1 of the WHO Handbook, with the exception of the “certainty of evidence”, which was assessed through the systematic review on the effectiveness of such policies on selected health and non-health outcomes. Building on evidence to decision frameworks proposed by the WHO Guidelines Review Committee (23, 24), guidance questions and search terms were developed to inform each of these criteria.

The factors fall under the broader categories that will be used to inform discussion on the guideline and decisions on the strength of the recommendations to be formulated by the WHO NUGAG Subgroup on Policy Actions for each of the three policy guidelines:

- Factor 1 – values, focusing on health outcomes and non-health outcomes;
- Factor 2 – resource implications, including the costs and cost-effectiveness of interventions, as well as a description of the use of revenue and impacts on productivity;
- Factor 3 – equity and human rights, focusing on health equity;
- Factor 4 – acceptability, reflecting the perspectives, attitudes and opinions of consumers, government and industry, and the support of these stakeholders for policies to protect children from the harmful impact of food marketing; and
- Factor 5 – feasibility, focusing on the feasibility of developing, implementing, administering, monitoring and evaluating marketing policies.

## Literature search

Types of literature to inform the review included systematic reviews, primary studies and grey literature.

Only literature published in English was included. Editorials, commentaries, industry statements, blog posts, newspaper articles, posts from social media outlets and so on were not included in the review. Other relevant inclusion and exclusion criteria are listed in the following sections. In addition to the search strategies listed below, the review also applied the “snowballing technique” – that is,

searching reference lists of eligible literature. This is a recommended method to identify additional relevant literature when conducting scoping reviews and rapid reviews (26).

Date of publication for all literature was restricted to 2004 and later. The WHO Global Strategy on Diet, Physical Activity and Health (27) was endorsed in 2004. Other initiatives that have occurred since 2004 include the 2008–2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases (28), resolution WHA 63.14 endorsing the Set of Recommendations on the Marketing of Foods and Non-Alcoholic Beverages to Children (29), the Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 (30) and the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition (31), which all recommended policies to restrict food marketing to children.

## **Systematic reviews**

Systematic reviews were searched for in the Cochrane Library, the Campbell Library and PubMed.

## **Primary studies**

Primary studies were searched for in PubMed. A total of 12 searches were conducted for the review of policies to protect children from the harmful impact of food marketing. All searches were made up of three parts: policy search terms, decision criteria search terms and exclusion terms. Part 1 included the search terms used for the relevant policy action, and were used across all searches for that particular policy action. Initially, the guidance questions were written to ensure that the decision criteria search terms (Part 2) could adequately identify literature that could inform each of the decision criteria. As the review progressed, a few of the guidance questions and searches were combined to yield a total of 12 different searches. Another reason for having multiple searches rather than a single search related to the combination of search terms needed. For example, to inform the criterion on development and implementation for Factor 5 (feasibility), it was decided that studies should include the MeSH term “Health Policy” together with different forms of the words “develop” or “implement” in the title or abstract. To make it feasible for one reviewer to scan and retrieve the results of all these searches (with oversight by, and consultation with, a second reviewer), a list of exclusion terms was added (Part 3) to exclude types of studies that were not relevant but were often part of the list of search hits (e.g. studies on marketing of tobacco and alcoholic beverages).

Finally, studies identified through each of the 12 searches informed multiple decision criteria. For example, some studies identified as part of the search for the criterion on development and implementation for Factor 5 (feasibility) also contained findings relevant to the criterion on acceptability to stakeholders for Factor 4 (acceptability). If primary studies identified as relevant were part of systematic reviews also deemed relevant, the primary study was not included unless it contributed important findings not captured by the systematic review. No restriction on publication date was applied.

Both qualitative studies (e.g. stakeholder interviews, focus groups, open-ended consumer surveys and interviews) and quantitative studies (including modelling studies of non-implemented policies) were included. In the WHO guideline development process, qualitative studies provide important insights when assessing the values, perspectives and opinions of stakeholders, and may complement quantitative studies in informing acceptability of interventions and implementation considerations (32–34). As a result, additional searches were conducted in JSTOR and Scopus (databases recommended by NUGAG members, specifically for qualitative research) to inform Factor 1 (values) and Factor 4 (acceptability).

## Grey literature

Different search strategies were applied to identify relevant grey literature, including strategically searching for literature through relevant source sites (listed below). Types of grey literature retrieved and included in the review included reports, articles, reviews, case studies, policy briefs and, for human rights, declarations and constitutions.

Publications available through the **WHO Institutional Repository for Information Sharing**:

- WHO reports, case studies and policy briefs, published either by WHO headquarters or at a regional level. This also included literature developed and published with the support of WHO but where WHO was not the primary author.

Publications in journals by **WHO Regional Offices**:

- Articles published in the *Bulletin of the World Health Organization*, the *WHO South-East Asian Journal of Public Health*, the *Pan American Journal of Public Health*, the *Eastern Mediterranean Health Journal*, and *Public Health Panorama*. Date of publication was restricted to 2004, as above.

Publications by other **United Nations (UN) organizations**:

- UN General Assembly documents, declarations and constitutions, including General Comments on the Convention on the Rights of the Child published by the Committee on the Rights of the Child, reports by the Special Rapporteur on the Right to Food and the Special Rapporteur on the Right to Health, and literature published by the UN Standing Committee on Nutrition
- Publications by the United Nations Children's Fund (UNICEF)
- Publications by the Food and Agriculture Organization of the United Nations.

Publications by **other global intergovernmental organizations and research institutions**, including:

- World Cancer Research Fund International
- NCD Alliance
- Organisation for Economic Co-operation and Development (OECD)
- World Obesity Federation.

### Government reports:

Government reports on implemented policies in a given country were considered relevant data sources by NUGAG members, as they may provide additional evidence for the resource implications, acceptability and feasibility of such policies.

Because of resource constraints, it was not possible to conduct a comprehensive search for government reports. Therefore, a strategic, targeted search for government reports was conducted based on the following two criteria:

- knowledge of existing policies, policies in a development phase<sup>1</sup> and ceased policies at national or subnational level, informed by evidence retrieved from peer-reviewed journal articles and other grey literature, as well as suggestions, inputs and advice received from NUGAG members and WHO regional advisers; policies, whether existing or in a development phase, must be government led; and

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<sup>1</sup> To be eligible for inclusion as a "policy in a development phase", there must be official records of government-led action or consultations with the objective of drafting or implementing the policy. For example, Health Canada initiated consultations with stakeholders in 2016 on restricting food marketing to children. In 2018, the proposed Child Health Protection Act (Bill S-228) passed the third reading in the House of Commons and was sent to the Senate for consideration. Bill S-228 was not called for a vote before the end of the 2019 Senate session, and the Parliament later dissolved for the 2019 federal election.

- use of English on government online sites and in government reports.

For the purpose of this review, government reports were defined as reports authored, co-authored or commissioned by government departments or ministries. Examples include self-evaluations, implementation evaluations, treasury statements, impact analyses, cost-analyses, and submissions to stakeholder or public consultations. To be eligible, reports had to:

- be publicly available in full-text versions on government websites; and
- provide information relevant to Factor 2 (resource implications), Factor 3 (equity and human rights), Factor 4 (acceptability) or Factor 5 (feasibility), for the respective policy guideline.

We aimed to include government reports from at least two countries in each of the six WHO regions for each policy guideline.<sup>1</sup> In addition to the criteria above, we aimed to include government reports from both low- and middle-income countries (LMICs) and high-income countries (HICs).<sup>2</sup>

The search for government reports was conducted in Google by:

- using the following search terms – “children (food OR foods) (marketing OR advertising OR promotion OR sponsorship) site:x filetype:pdf”;
- if available, using the title (or abbreviation) of an implemented policy in addition to the search term; however, for some policy guidelines, including the title of policies was not applicable (e.g. when searching for reports on nutrient declarations), in which case only the list of search terms was used;
- restricting hits to government URLs of the countries included in this review;<sup>3</sup>
- restricting hits to PDF files (filetype:pdf);
- screening the first 100 hits sorted by relevance; and
- using snowballing<sup>4</sup> as needed to retrieve other relevant government reports for the identified country.

## Screening, data extraction and synthesis

Titles and abstracts of studies were screened by a single reviewer. Studies identified as relevant were screened by reading the full text, and one reviewer critically appraised the identified literature. A charting record was kept describing characteristics of the included studies and the key information relevant to the guidance questions and decision criteria. A narrative synthesis for each factor was written. A second reviewer oversaw screening, data extraction and synthesis.

## Terms used in synthesis

Various uses, definitions and interpretations exist across the literature for terms such as “marketing” and “unhealthy foods”. The synthesis of findings was written applying the original terms used in the included literature. This resulted in a heterogeneity of terms used, but ensured that the original findings in the literature were adequately conveyed.

<sup>1</sup> Policies to protect children from the harmful impact of food marketing, nutrition labelling policies, fiscal policies to promote healthy diets, and school food and nutrition policies.

<sup>2</sup> WHO groups countries into LMICs and HICs using the World Bank income classifications.

<sup>3</sup> For the countries search in this review, the following government sites were used: Australia (site:gov.au), Canada (site:gc.ca or site:canada.ca), Fiji (site:gov.fj), Ireland (site:gov.ie), New Zealand (site:govt.nz), Norway (site:regjeringen.no), Philippines (site:gov.ph), Saudi Arabia (site:gov.sa), Seychelles (site:gov.sc), South Africa (site:gov.za), Sri Lanka (site:gov.lk), United Kingdom (site:gov.uk) and United States (site:gov).

<sup>4</sup> Snowballing involves seeking out other relevant documents identified in the screened government reports.

# Factor 1: Values

This section presents a narrative synthesis of literature identified as relevant to the importance to affected populations (those affected by exposure and/or outcome) of the critical and important health outcomes of implementing or not implementing policies to protect children from the harmful impact of food marketing. These include children's body weight (reflected in body mass index (BMI) and obesity), diet-related NCDs, and dental caries or erosion in children. For the purpose of this review, "value" is also interpreted as a belief or a perception the affected population holds towards the health outcomes. To the extent possible, the section presents evidence on how values vary within and across population subgroups, and uncertainty in the importance or variability of values.

An in-depth exploration of how food values are shaped is beyond the scope of this review. However, it is important to recognize that values are central to consumers' food choices, and that they go beyond the taste, safety, healthiness, convenience and price of foods. Values are shaped, for example, by cultural, social and environmental beliefs. Aspects relating to environmental concerns, including how foods are produced and distributed, shape food consumption values. Elements of the food environment – in particular, how foods are marketed – have long been recognized as shaping and changing consumption norms and affecting value systems (35, 36). Intense marketing of unhealthy foods, for example, "weaken[s] and undermine[s] injunctive norms that would otherwise discourage the excess consumption of energy dense, low nutrition food and drinks" while strengthening norms that such products are a regular and typical part of diets (37). Marketing also misleads consumers to believe that marketed foods are healthier than they truly are – for example, by making inappropriate health and nutrition claims (38); in some cases, claims are so misleading that the marketing practice is stopped and penalties are imposed (39). Evidence on how consumers value non-misleading marketing is limited. However, one survey found that most respondents considered misleading food advertising to be inappropriate advertising (40). Similarly, when children were asked what they would change about "unhealthy food marketing", one of the most common suggestions was to make food advertising truthful (41). Parent concerns about deceptive and manipulative marketing to which children are exposed are further discussed in a narrative review commissioned by WHO.<sup>1</sup>

In the context of policies to protect children from the harmful impact of food marketing, it is important to consider the interlinkage between values, which have been shaped by marketing itself, and the acceptability of the proposed policy action to restrict food marketing. The value that the population holds towards such policies is synthesized in detail in the section on acceptability of the intervention to the public and consumers (Factor 4).

## Values related to body weight/BMI/obesity and diet-related NCDs

In HICs, overweight and obesity are generally perceived negatively and as a serious health problem by the majority of adults and children (42–50). In a systematic review of 30 studies conducted in the United Kingdom, for example, children and adolescents (aged 12–18 years) emphasized the social consequences of having overweight or obesity, such as bullying and exclusion. Both sexes considered "thin", "slim" or "skinny" bodies to be the ideal young woman's body and "muscular" or

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<sup>1</sup> Narrative review of evidence of marketing exposure, power, and associations between food marketing and eating-related attitudes, beliefs, and behaviours (forthcoming).

“fit” bodies to be the ideal young man’s (51). Research on children’s values related to behaviours to prevent overweight and obesity is ongoing (52).

Some studies have identified differences in values related to overweight and obesity between subgroups. For example, women and parents in Australia were significantly more likely to consider overweight and obesity to be a serious issue than men and adults without children, respectively (46). In the United States, a study found that adults generally perceived childhood obesity as more serious than adult obesity. Compared with adults residing in communities of high socioeconomic status (SES), those residing in communities of lower SES were significantly more likely to perceive obesity as a very serious problem (45). Other studies from HICs have compared values and body size preferences between women of different ethnicity. For example, a study in the United Kingdom found that women of Caribbean and African descent, despite recognizing the risk of weight-related health problems, expressed less concern about weight in general, and had more favourable attitudes towards fatness and being overweight, than Caucasian women of British descent (53). A United States study found similar differences, but also identified African Americans as being significantly less likely than whites or Hispanics to view obesity as a health problem (54).

In some cultures, particularly in LMICs, a large body size is often valued as indicating good health, wellbeing and wealth (55–60). For example, a study from Indonesia found a positive association between self-reported happiness and obesity, concluding that “fatness was admired” and that “thinness [was] a constant reminder of the immediate possibility of hunger and starvation” (55). Multiple studies from the African region provide similar findings. For example, indigenous men and women in Nigeria (57), adult Saharawi refugees in Algeria (58), black women in South Africa (59) and women in urban Senegal (60) all reported preferring a large body size (often overweight on the basis of BMI category: BMI >25 kg/m<sup>2</sup>). Overweight individuals in the Nigerian population generally accepted their excess weight and wanted to remain overweight, while individuals of normal weight tended to prefer a bigger size – particularly when dissatisfied with their current body image (57). The study from Algeria presented very similar results, but also concluded that younger participants (18–25 years old) had less of a desire to be overweight or obese than those who were older (58). In Senegal, study participants’ definitions of overweight and normal weight differed substantially from BMI health definitions: one third of the sample regarded the overweight or obese BMI category (illustrated through images) as normal, and over one third of women having a BMI >25 kg/m<sup>2</sup> wanted to gain more weight (60). However, although most participants regarded the overweight image (BMI >25 kg/m<sup>2</sup>) positively, people with obesity (BMI >30 kg/m<sup>2</sup>) shown in images were regarded as “greedy and having a large appetite”, indicating a shift in attitudes (60). Overweight in men was valued less positively than in women, with the former cited as a “sign of laziness” in a Zambian study (60, 61). The negativity towards a thin (normal weight) figure and the preference for overweight in some African cultures have been linked to poverty and the presence of diseases. For example, a recent qualitative study from Zambia found that thinness or weight loss was valued negatively, and often associated with diseases such as HIV/AIDS (61). Other studies from sub-Saharan Africa have reached similar conclusions (56, 62–65). However, some studies have identified a change in values towards “Westernized” perceptions of an ideal body size, in accordance with normal weight BMI (66, 67). Similar developments have been identified in the Pacific (47, 68). Whereas overweight traditionally was associated with high SES, authority and wealth among Pacific islanders (69, 70), more recent studies have identified how attitudes to body weight and size have changed over time, with an increased affinity for less overweight figures (47, 68). Economic development, globalization, and increased awareness of the association between overweight, obesity and diet-related NCDs are cited as reasons for the shift in values and preferences (47, 68). Studies from the eastern Mediterranean region have found a similar

development, with the adoption of Western values of “thinness [as] a sign of beauty and health” (71) – concurrent with increased concerns and dissatisfactions with body weight, especially among the younger population (72, 73).

Whereas the values related to body weight status, undernutrition and obesity vary (as summarized above), the identified studies found that diet-related NCDs are perceived negatively and as health problems across both regions and subpopulations (61, 63, 64, 74).

Evidence exists on population subgroups’ perceived determinants of body weight status, obesity and diet-related NCDs, including awareness of risk factors (45, 47, 48, 54, 75–81). Reporting on this was deemed outside the scope of this review. Importantly, however, the belief or opinion that the food environment is a determinant of body weight status (a factor beyond individual control) or that the government and food industry bear some responsibility was associated in studies with higher acceptability for government policies to prevent and treat obesity (82–84). This association is reviewed below in the section “Acceptability of the intervention to the public and consumers” (under “Factor 4: Acceptability”).

### **Dental caries and erosion in children**

Dental caries and erosion in children are perceived negatively across countries, regions, SES groups and cultures (85–91). Literature has acknowledged the existence of a social gradient of oral health (88, 92–94), and identified differences in dental care behaviours (89, 92), awareness of risk factors for poor oral health (87, 89, 90), and perceived barriers to good oral health (85, 87, 89, 91). However, no literature identified for this review reported on important or significant differences in values towards dental caries and erosion in children.

## Factor 2: Resource implications

This section presents a narrative synthesis of literature identified to assess the resource implications of policies to protect children from the harmful impact of food marketing. Relevant criteria for resource implications included the ratio of costs and benefits for the intervention, costs of the intervention in the long and short terms, and the economic impact of the intervention on the national and global economies.

Seven studies and two impact assessments were identified to assess the resource implications of policies to protect children from the harmful impact of food marketing. These were all based on modelling. The policies modelled (including underlying assumptions, target populations, effect sizes and outcome measures) varied, but all found that policies to protect children from the harmful impact of food marketing would be cost-effective in the long term for the countries examined. Details are presented below.

Two studies from Australia, both part of the Assessing Cost-Effectiveness in Obesity (ACE-Obesity) project, have modelled the cost-effectiveness of restricting or banning television advertising to children (95, 96). The most recent study from 2018 modelled hypothetical legislation to restrict “HFSS [high fat, sugar and salt] TV advertising” to children under 16 years of age until 9.30 pm on free-to-air television. The intervention was estimated to cost A\$ 5.9 million, which included legislative costs of implementation and ongoing compliance costs (95). Healthcare costs saved and health-adjusted life years (HALYs) gained were modelled for children aged 5–15 years for the 2010 Australian population by estimating reductions in energy intake and population body weight. Over a lifetime (modelled as 100 years), reductions in population body weight were estimated to save 88 396 HALYs. Total healthcare cost savings in the same period were estimated as A\$ 783.8 million, and net cost savings (including the cost of the intervention) were estimated as A\$ 777.9 million. As a result, the authors concluded that the hypothesized legislation to restrict television advertising to children, in the Australian context and under the modelling assumptions, was a cost-effective intervention for obesity prevention on a population level (95). Additionally, by conducting sub-analyses for SES, the authors concluded that the hypothesized intervention would have a positive impact on health inequities. Compared with children of higher SES, children of lower SES would experience 1.5 times higher health benefits (in HALYs), with a resulting 1.4 times higher total cost savings over a lifetime (95). The other Australian modelling study, from 2009, used a different intervention, underlying assumptions and target population. The hypothesized regulation included banning television advertising of “EDNP [energy-dense, nutrient-poor] foods, as well as for beverages and fast food outlets” in the morning for 1–2 hours, and in the afternoon and evening up to 9.30 pm (96). The cost of the intervention was estimated as A\$ 130 000; in contrast to the more recent study (95), this only included implementation costs and “assumed that broadcasters would comply with tightened regulations to minimize any cost associated with noncompliance and subsequent complaint handling” (96). The authors estimated incremental costs of stricter monitoring and the enforcement of tightened regulations to be “quite minimal ... as a regulatory framework already existed” (96). Assuming a 13% reduced consumption of “EDNP foods”, health benefits were modelled as reductions in body weight and disability-adjusted life years (DALYs) for children aged 5–14 years for the 2001 Australian population. Future healthcare costs saved were estimated as A\$ 300 million, with a total of 37 000 DALYs saved. The authors concluded that the modelled intervention would be “extremely cost-effective in reducing unhealthy weight gain in children aged 5–14 years”, and reported that the intervention was the most cost-effective at a population level of the 13 interventions analysed in the 2009 ACE-Obesity project (96).



A United States study modelled the cost-effectiveness of removing tax subsidies on television advertising<sup>1</sup> of “nutritionally poor foods and beverages” to children and adolescents in a period from 2015 to 2025 (97, 98). The simulated tax policy change was estimated to reach approximately 74 million children aged 2–19 years in the United States in the 10-year period. Costs of the new tax policy were estimated as US\$ 1.05 million for the first year and US\$ 9.26 million for the entire 10-year period; they included costs related to processing and auditing, but not costs related to enacting the policy. The estimates assumed that 20–25% of the 44 food companies responsible for the majority of expenditures on food marketing to children would be audited for compliance (97). By modelling reduced exposure to television advertising for “nutritionally poor foods and beverages”, and subsequent reductions in energy intake and population body weight, the authors estimated that the policy change would result in an increase in quality-adjusted life years (QALYs) of 4540. Over the 10-year period, the reduction in population body weight was projected to prevent 129 000 cases of childhood obesity, resulting in US\$ 352 million in healthcare cost savings. A reduction of US\$ 343 million in net societal costs (including the cost of the tax policy change and healthcare cost savings) was projected. The additional revenue gained from removing tax subsidies was estimated as US\$ 80 million for the first year with “continuing additional revenue in later years”. The authors expected a loss in revenue for companies selling predominantly “nutritionally poor foods”, but an increase in revenue related to “other healthier foods ... not covered by the proposed intervention”. Thus, the authors assumed that, industry wide, the reduction in sales of “nutritionally poor foods” would be offset by an increase in sales of other foods, and that a loss in revenue by commercial broadcasters would likely be offset by new advertising contracts for other products. With an estimated US\$ 38 saved for every dollar spent on the intervention, the authors concluded that the intervention was cost saving and cost-effective because it would result in an increase in QALYs and reduction in total costs compared with current practice. Additionally, the authors found that the modelled tax policy change would confer a larger benefit on children of lower SES and Hispanic children, who have higher levels of television viewing than children of higher SES and white, non-Hispanic children (97, 98).

Three studies using data from multiple LMICs and HICs estimated the cost-effectiveness of different public health strategies to prevent obesity, including policies to restrict food marketing to children (99–101).

Using data from six countries with a high burden of diet-related chronic diseases (Brazil, China, India, Mexico, Russian Federation and South Africa) and England, for comparison purposes, a study assessed the cost-effectiveness of restricting food advertising to children by modelling changes in exposure to television advertising, energy intake, population body weight and cost of the intervention per capita (100). Cost of the intervention per capita was highest in England (US\$ 0.30), and lowest in China and India (both less than US\$ 0.01). DALYs saved per million population after 20 years of implementation were highest in Russian Federation (288 DALYs) and lowest in Brazil (38 DALYs). Cost-effectiveness ratios were expressed in US\$ per DALY averted, representing the net cost of gaining one additional year of healthy life, relative to no intervention. The cost-effectiveness ratios differed between the seven countries, with the highest ratio in England (25 672) and the lowest in China (556) after 20 years. For all countries except India, ratios were below the established cost-effectiveness thresholds – that is, the point at which an intervention would no longer be cost-effective. After 50 years, DALYs averted had increased from six-fold (Mexico) to 26-fold (Brazil), and cost-effectiveness ratios had decreased for all countries, including India where the cost-effectiveness ratio was now below the threshold (indicating that the intervention was cost-effective for India after 50 years). The authors noted that, compared with the other modelled interventions in the study

<sup>1</sup> In the United States, television advertising is treated as an ordinary business expense and thus subsidized through taxes.

targeting adults (such as primary care-based counselling), the regulation of food advertising was “unlikely to have any meaningful effects within populations for at least 40–50 years”. However, provided that some of the behavioural changes resulting from regulating food advertising to children could be maintained over a life-course, the final overall benefits of the intervention in DALYs would be as large as those of some interventions that were more effective over a shorter term (such as primary care-based counselling). Thus, health gains from interventions targeting children occur in the long term: restricting food advertising to children was estimated to be a cost-effective public health strategy in Brazil, China, Mexico, Russian Federation, South Africa and England after 20 years, and in all seven countries after 50 years (100).

A simulation study by the OECD on the regulation of food advertising to children assessed the cost-effectiveness of the intervention in five countries (Canada, England, Italy, Japan and Mexico) by modelling reductions in exposure to television advertising, energy intake, population body weight and cost of the intervention per capita (99). Two scenarios were modelled: a government regulation and an industry self-regulation. The estimated cost per capita of introducing government regulation of food advertising on television ranged between 0.14 and 0.55 US\$ purchasing power parities (PPPs). Industry self-regulation was estimated to cost between 0.01 and 0.04 US\$ PPPs per capita. For the government regulation, intervention costs were assumed to include basic administration and planning at the national and local levels, training of staff to oversee implementation, and monitoring and enforcement costs. For the self-regulation scenario, the authors expected basic administration, facilitation and supervision costs to arise at the national level only, and for enforcement costs to be lower than for mandatory regulations. The study did not specify in detail the cost-effectiveness ratios or numbers of DALYs averted, but concluded, similar to the previous study (100), that the modelled intervention would result in “little or no [health] gains in the first several decades”; the majority of DALYs would be saved in the second half of the 100-year simulation period (99). The effects of self-regulation were assumed to be half of those produced by government regulation, because of “possibly looser limitations self-imposed on advertising and a less than universal compliance to the voluntary arrangements” (99). The authors concluded that the pattern of “incommensurable cost-effectiveness ratios during the first several decades” was not specific to the regulation of food advertising to children, but applicable to all interventions targeting children that may take a long time to make an impact and reach favourable cost-effectiveness ratios (99).

In a newly published analysis for 36 countries, the OECD modelled the effect of a complete ban on food advertisements on television targeting children less than 18 years of age (101). The countries used included OECD countries in Europe, as well as Australia, Canada, Japan and Mexico, together with non-OECD countries in Europe, and South Africa. The modelled intervention was assumed to be initiated by government, and to affect all children aged 5–18 years (101). In contrast to the studies described above that used a simulation period of 100 years (95, 96, 99), this study assessed effectiveness over the period 2020–2050 (assuming implementation of the intervention in 2019) (101). The cost of the intervention was made up of the same elements as costs for the government regulation in the previous OECD study (99) – that is, basic administration and planning at the national and local levels, training of staff to oversee implementation, and monitoring and enforcement costs. The cost varied between 0.52 and 0.59 US\$ PPPs per capita annually across the countries included in the analysis. The relatively shorter simulation time period had implications for the conclusions on cost-effectiveness of the intervention. No child targeted under the intervention would reach the age of 50 by the end of the simulation period, which means that the analysis was unable to capture most of the intervention’s projected health-related benefits. However, the authors estimated the cost of

<sup>1</sup> Purchasing power parities (PPPs) are rates of currency conversion that try to equalize the purchasing power of different currencies by eliminating the differences in price levels between countries.

implementing the intervention to be about 20% of the benefit, in terms of gross domestic product, for all countries examined (101).

A 2019 impact assessment in the United Kingdom estimated the costs and benefits of restrictions on television and online advertising of “HFSS products” (via a 9 pm to 5.30 am watershed) (102). The assessment estimated a net benefit of £2730 million. Benefits were estimated to include £1.9 billion of health benefits from lower calorie consumption by children over their lifetimes, £0.8 billion of additional health benefits from reinvesting cost savings into the National Health Service, £52 million of social care savings, and £41 million of economic output due to reduced premature mortality. Costs were estimated at £1.9 billion to broadcasters from lost HFSS advertising revenue; £35 million to advertising agencies from lost commission; £35 million to manufacturers and retailers from reduced sales of targeted foods and beverages; and £0.5 billion to online platforms and advertising intermediaries. Analyses were also completed for restrictions on television advertising only (via a 9 pm to 5.30 am watershed) and for retention of current television restrictions with the addition of online restrictions (via a 9 pm to 5.30 am watershed).

A 2006 impact assessment of options for proposed restrictions on television advertising of “HFSS products” to children in the United Kingdom estimated the costs and benefits of four different policy options: timing restrictions on advertising of HFSS products; timing restrictions on advertising of all foods and beverages; volume-based restrictions on advertising of all foods and beverages; and exclusion of advertising of HFSS products before 9 pm (103). Timing restrictions on HFSS products were estimated to have health benefits for children of around £49 million per year if based on QALYs or £235 million per year if based on value of life (VOL), and to reduce broadcasters’ revenues by around £18 million (or 0.3%) per year. Timing restrictions on all foods and beverages were estimated to have health benefits for children of around £49 million per year if based on QALYs or £235 million per year if based on VOL, and to reduce broadcasters’ revenues by around £21 million (or 0.4%) per year. Volume-based restrictions on all foods and beverages were estimated to have health benefits for children of around £46 million per year if based on QALYs or £221 million per year if based on VOL, and to reduce broadcasters’ revenues by around £43 million (or 0.8%) per year. Finally, exclusion of advertising of HFSS products before 9 pm was estimated to have health benefits for children of around £102 million per year if based on QALYs or £495 million per year if based on VOL, and to reduce broadcasters’ revenues by around £141 million per year.

# Factor 3: Equity and human rights

This section presents a narrative synthesis of literature identified as part of separate searches conducted for two criteria: universal human rights standards, and impact on (health) (in)equity and (health) (in)equality (including social and socioeconomic impact). The first of these criteria includes, to the extent possible based on the identified literature, both an assessment of whether policies to protect children from the harmful impact of food marketing are in accordance with human rights standards (using human rights documents such as conventions, declarations and general comments) and a synthesis of studies examining policies to protect children from the harmful impact of food marketing from a human rights perspective.

Equity in this review is defined as a situation in which there are no unfair or avoidable differences in health among population groups irrespective of income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics. Equality in this review is defined as the absence of differences, variations and disparities in living conditions of individuals and groups.

## Universal human rights standards

Human rights define the entitlements of all human beings and the corresponding obligations of governments as the primary duty bearers. Human rights have been negotiated by governments and agreed upon in human rights treaties, such as conventions and covenants, which are legally binding to states that are parties to them (22, 104). This section describes whether policies to protect children from the harmful impact of food marketing are in accordance with human rights standards and may affect human rights.

### Accordance with international and regional human rights standards

The right to health comprises both freedoms and entitlements. Freedoms include the right to control one's health. Entitlements include the right to a system of health protection and promotion that gives everyone an equal opportunity to enjoy the highest attainable level of health (22). The right to health is well established in international treaties such as the Universal Declaration of Human Rights (UDHR); the International Covenant on Economic, Social and Cultural Rights (ICESCR); the Convention on the Rights of the Child (CRC); and major regional human rights agreements (104–111). On a national level, many countries have recognized the right to health in their constitutions (112, 113).

The right to health, food, non-misleading information and privacy are all relevant rights in relation to policies to protect children from the harmful impact of food marketing.

The UDHR, the ICESCR and, specifically, the CRC provide the legal framework for a child rights-based approach to optimal nutrition and health. Through its articulation of a wide array of rights, the CRC establishes a platform to regulate food marketing to which children are exposed by establishing the obligations of governments. In interpreting Article 24 of the CRC, the Committee on the Rights of the Child stated that all children should “live in conditions that enable them to attain the highest standard of health through the implementation of programmes that address the underlying determinants of health” (105, 114). Nutrition is a key determinant of health, and the impact of food marketing to children influences food preferences and dietary intake (18). An environment where children are exposed to persuasive and pervasive marketing is not conducive to optimal health. Left

unregulated, current food marketing practices could jeopardize fulfilment of the CRC for its States Parties.<sup>1</sup> The General Comment on Article 24 of the CRC states that “children’s exposure to ‘fast foods’ that are high in fat, sugar or salt, energy-dense and micronutrient-poor, and drinks containing high levels of caffeine or other potentially harmful substances should be limited. The marketing of these substances – especially when such marketing is focused on children – should be regulated ...” and that “private companies should ... limit advertisement of energy-dense, micronutrient-poor foods, and drinks containing high levels of caffeine or other substances potentially harmful to children ...” (114). Similarly, the Committee on the Rights of the Child, in interpreting Article 16 of the CRC, stipulates that “States should ensure that marketing and advertising do not have adverse impacts on children’s rights by adopting appropriate regulation” (115). In 2014, the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health (2008–2014) called for governments to “put in place national policies to regulate advertising of unhealthy food ... with the objective of reducing children’s exposure to powerful food and drink marketing” (116). The Special Rapporteur specifically addressed the regulatory nature of existing policies to restrict marketing, emphasizing the “need for States to adopt laws that prevent companies from using insidious marketing strategies”, owing to “the inherent problems associated with self-regulation and public–private partnerships”. The Special Rapporteur further explained that current “self-regulation by companies has not had any significant effect on altering food marketing strategies” (116). Other reports by Special Rapporteurs on the right to food, and Special Rapporteurs on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health have also emphasized the need to regulate marketing to which children are exposed to protect, fulfil and respect human rights (117–119).

More generally, Article 24 of the CRC calls on governments to take appropriate measures to “ensure that all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition” (114). Recognizing the vulnerability of children to misinformation and manipulation, by virtue of age and maturity, Article 17 of the CRC encourages the development of “appropriate guidelines for the protection of the child from information and material injurious to his or her well-being” (105). In interpreting Article 17, the Committee on the Rights of the Child has recognized that freedom of expression of the media is not incompatible with the prohibition of material injurious to children’s well-being. Article 3 of the CRC requires that the best interests of the child shall be the primary consideration in all actions concerning children, including children’s welfare and well-being (105).

Thus, a wide range of relevant human rights texts document how policies to protect children from the harmful impact of food marketing are in accordance with human rights standards.

An area of increasing focus in relation to children’s rights and food marketing is marketing through online media (120–122). In a general comment on children’s rights in relation to the digital environment, the Committee on the Rights of the Child noted that States Parties should “make the best interests of the child a primary consideration when regulating advertising and marketing addressed to and accessible to children” (123). The comment specifically addresses food marketing to which children are exposed in that it notes that States Parties “should regulate targeted or age-inappropriate advertising, marketing and other relevant digital services to prevent children’s exposure to the promotion of unhealthy products, including certain food and beverages, alcohol, drugs, tobacco and other nicotine products”. The comment also notes that “such regulations relating to the digital environment should be compatible and keep pace with regulations in the offline environment”.

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<sup>1</sup> States Parties to the CRC: [https://www.ohchr.org/Documents/HRBodies/CRC/OHCHR\\_Map\\_CRC.pdf](https://www.ohchr.org/Documents/HRBodies/CRC/OHCHR_Map_CRC.pdf)

The European Union (EU) and the United States have passed laws to protect people's right to privacy online, including the rights of children. In the EU, Articles 6 and 7 of the European General Data Protection Regulation, adopted in 2018, enshrine the rights of children to adequate protection against the misuse of their customer data; a parent or guardian must provide legal consent for children under 16 years of age (124, 125). In the United States, the Children's Online Privacy Protection Act of 1998 (COPPA), passed by the United States Congress and entering into force in 2000, protects the privacy of children under 13 years of age (126). COPPA provides a legal framework for regulating online marketing techniques – for example, the use of cookies. In a recent example of an alleged violation (the case was settled and did not go to court<sup>1</sup>), a major United States multinational technology company and its subsidiary (a video-sharing platform) were said to have “knowingly and illegally harvested personal information from children and used it to profit by targeting them with ads” (127). Two food companies, providing birthday greetings and coupons for free cookies or pretzels on their websites, have settled similar charges (128).

### Studies examining marketing from a human rights perspective

There is a growing momentum in global, regional and national action plans and reports (30, 120, 129, 130) for a human rights lens to be used to address malnutrition and diet-related NCDs. A human rights-based approach provides a lens that shifts the emphasis to the protection of children's rights, placing children at the centre of decision-making (129, 131, 132).

The literature search for this review identified various studies examining food marketing to children from a human rights perspective. An analysis of the potential of a human rights approach to accelerate the implementation of comprehensive restrictions on the marketing of “unhealthy food and beverage products” to children identified four relevant themes in existing human rights instruments (131).

- The best interest of the child should be considered above all other interests.
- The right to health and adequate food cannot be realized without supportive healthy environments.
- Children should be protected from economic exploitation.
- The persuasive marketing of “unhealthy food and beverage products” is explicitly recognized as a threat to the rights to food and health.

A policy analysis of legal solutions to address obesity in the United States concluded that any child protection legislation should advance the government's interest in protecting children but must not restrict speech for adults. The author concluded that governments can entirely ban or otherwise regulate marketing to children that is false, deceptive or misleading without violating the right to free or commercial speech (133). Similarly, another United States policy analysis concluded that the Federal Trade Commission has the authority to initiate rule-making in the realm of food marketing to children as deceptive communications in interstate commerce, which violate the Federal Trade Commission Act (134). The Quebec ban on advertising to children, implemented in 1980, was criticized as an infringement of free speech, but the Supreme Court of Canada upheld the validity of the law in 1989 (135). The authors in a study on the extent and nature of marketing of “unhealthy food” to New Zealand children and adolescents through the internet raised concern about the violation of children's privacy through the use of cookies (136). A mixed-methods study on food marketing in Uganda found that prevalence of “unhealthy” food marketing was significantly higher in urban areas than in peri-urban areas, and that the consumption of unhealthy foods was perceived

<sup>1</sup> In September 2019, a major United States multinational technology company was fined US\$ 170 million in a settlement with the United States Federal Trade Commission and New York's Attorney-General for violating children's privacy on a video-sharing platform. The fine was the largest civil penalty obtained by the Federal Trade Commission in a children's privacy case.

as “belonging to people of higher socioeconomic status” (137). Seven Ugandan state actors who were interviewed on human rights and marketing in the study all acknowledged that unhealthy food marketing could theoretically pose a health concern and constitute a human rights issue for children. However, before the study, they had not been aware of the extent of marketing of unhealthy foods and beverages in their country, or the connection between this and human rights<sup>1</sup> (137). An Argentinian review of sports sponsorships by companies producing sugar-sweetened beverages (SSBs) concluded that the current national policy “violates [children’s] right to health and reveals that the State fails to comply with its obligation to protect such right” (138).

A submission from the Obesity Policy Coalition to Australia’s National Children’s Commissioner on Australia’s progress in implementing the CRC argued that government controls on the marketing of “unhealthy” food to children were important for fulfilling multiple obligations under the CRC (139). This included fulfilment of Article 24 (the right to health) and Article 17 (the right to access information from diverse sources, including protection from material injurious to well-being) because of the influence of marketing on children’s food consumption, and its contribution to overweight and obesity. The submission also argued that regulation was relevant to fulfilling Article 32 (the right to protection from economic exploitation) on the basis that corporations’ promotion of unhealthy products has taken precedence over children’s health and wellbeing, and that exposing children to high volumes of marketing of unhealthy food exploits children’s inability to differentiate between content intended to persuade and content intended to entertain. Regulation of digital marketing was also noted as relevant to Article 16 (protection from arbitrary or unlawful interference with privacy) because of the privacy risks from the collection and disclosure of personal and other information that may occur in digital marketing.

In the United Kingdom, a 2019 impact assessment of proposed restrictions on television and online advertising of “HFSS products” noted that restrictions “raise potential issues in relation to freedom of expression (Article 10 European Convention on Human Rights) and peaceful enjoyment of possessions (Article 1 Protocol 1 to the Convention)” and that any policies adopted would need to be compatible with the Human Rights Act (102). Although Article 10 of the European Convention on Human Rights states that “everyone has the right to freedom of expression”, it also notes that “the exercise of these freedoms, since it carries with it duties and responsibilities, may be subject to such formalities, conditions, restrictions or penalties as are prescribed by law and are necessary in a democratic society, ... for the protection of health or morals” (140).

### **Impact on (health) (in)equity and (health) (in)equality**

The literature search yielded few studies directly examining the impact of policies to protect children from the harmful impact of food marketing on health (in)equity or (in)equality. A systematic review from 2013 noted the general lack of evidence (141). Similarly, another systematic review conducted in 2015 on the impact on socioeconomic inequalities of different interventions to promote healthy eating found no relevant studies on restrictions on marketing through controls or bans, labelling, recommendations or guidelines (grouped together as “prescriptive interventions” in the review)<sup>2</sup> (142). However, the review found that other structural and universally delivered upstream interventions that create a healthier environment (e.g. taxes on unhealthy foods) could reduce inequalities by circumventing the voluntary behaviour change element (142) – a finding that may also be applicable to regulation of marketing.

<sup>1</sup> The Ugandan state actors highlighted that the “current situation of hunger and malnutrition required much more critical attention”.

<sup>2</sup> One of the exclusion criteria in the systematic review was action initiated by industry. Hence, it is possible that no studies were found because most action on marketing is still initiated by industry.



Research has shown that children of lower SES are more exposed to food marketing than children of higher SES (99, 143, 144). Such differential exposure<sup>1</sup> (with regard to the extent or nature of marketing) can instigate or worsen inequities. Hence, regulations to restrict marketing can, by correcting the differential exposure to marketing, limit inequities in health. Tackling the social gradient of diet-related NCDs<sup>2</sup> has also been identified as a rationale for governments to view interventions that prevent obesity as part of their efforts to protect the health of vulnerable groups and prevent the widening of health gaps between population groups (99). For example, a modelling study found that restricting “HFSS TV advertising” to Australian children was likely to have 1.5 times greater health benefits (in HALYs) and 1.4 times greater healthcare cost savings for children of lower SES, compared with those of higher SES (95). The difference in effect estimates of the intervention was determined by differences in television viewing time – children of low SES have longer viewing times than children of high SES (95). A United Kingdom study reached a similar conclusion, finding that total television exposure to food advertising (of which 63% was for foods high in fat, salt and sugars) was 2.1 times greater among the least versus the most affluent viewers (144). Another study from the United Kingdom examined outdoor food advertising across three areas of different SES in one city, and found that total advertising space and food advertising space (in square metres) were largest in the area of lowest SES (143). Similarly, a United States study found large variations in the amount and type of advertising across zip code areas. Living in an upper-income neighbourhood, regardless of its residents’ predominant ethnicity, was generally protective against exposure to most types of obesity-promoting outdoor advertising (fast foods and SSBs) (145).

Differential exposure by ethnicity with regard to the extent and/or nature of food marketing has also been documented, especially in the United States (145-155). For example, a systematic review found that food and beverage marketing to Latinos in the United States was less likely to promote healthy eating and more likely to encourage consumption of “low-nutrient, calorie-dense foods and beverages”, compared with marketing to non-Latinos (146). The differences were especially pronounced for Latino children (146). Likewise, another United States study found that fast food advertisements on television appeared more frequently during African-American-targeted programmes than during general audience programmes, and that African-American children saw at least 50% more advertisements for fast foods on television than Caucasian children (147). A recent report concluded that disparities in the United States between African-American and Caucasian children and adolescents in exposure to all food-related television advertisements had increased since 2013 (148). The authors identified three reasons for the increased disparity: increased food-related spending on African-American-targeted television advertising, increased differences in time spent watching television, and an increase in advertisements of foods in the types of programmes watched by African-American children and adolescents (148). For example, in 2013, African-American children and adolescents viewed 70% more food advertisements than their Caucasian peers. In 2017, the disparity had increased to 86% for children and 119% for adolescents (148). A United States study examining outdoor advertising across neighbourhoods found that the density of advertising varied by ethnicity (145). African-American neighbourhoods had the highest densities of outdoor advertising; Latino neighbourhoods had slightly lower densities; and Caucasian neighbourhoods had the lowest densities (145). Similarly, another United States study mapping outdoor marketing found a significantly higher prevalence of marketing of “calorie-dense, high-fat, low-nutrient food or beverage products” around schools with a higher Hispanic population than around schools with fewer Hispanic students (156).

<sup>1</sup> “Differential exposure” means that social position influences exposure to material, psychosocial and behavioural risk factors. In general, the higher the social position, the lower the exposure to common risk factors.

<sup>2</sup> The social gradient of health (including diet-related NCDs) refers to the phenomenon whereby individuals of lower SES have worse health (and shorter lives) than individuals of higher SES. For diet-related NCDs, individuals of lower SES are at higher risk for excess weight gain, obesity and NCDs.



In the United Kingdom – where children from the most deprived areas are significantly more likely to have overweight or obesity than those from the least deprived areas – a 2019 impact assessment of proposed restrictions on television and online advertising of “HFSS products” considered the impact of restrictions on these inequalities (102). Evidence from the assessment found that children in less affluent households spent more time than children in more affluent households watching television and online. Compared with individuals from the least deprived communities, those in the most deprived communities had higher recall of “unhealthy” food advertising. The restrictions were therefore expected to reduce inequalities in overweight and obesity.

# Factor 4: Acceptability

This section presents a narrative synthesis of the literature identified to assess the acceptability of policies to protect children from the harmful impact of food marketing. Separate searches were conducted for the following criteria: acceptability to stakeholders (divided into government and policy-makers, the public and consumers, and industry), sociocultural acceptability and environmental acceptability. For the purpose of this review, “acceptability” was interpreted as support for a policy, expression of a need for a policy or for strengthening existing measures, or preference for such a policy compared with other measures.

## Acceptability to stakeholders

In general, the acceptability of policies to protect children from the harmful impact of food marketing appears to greatly depend on the overall aim of the policy and the policy design, including its comprehensiveness and regulatory nature. Acceptability varies within and across stakeholder groups.

## Acceptability of the intervention to government and policy-makers

The action already taken by some countries on regulating food marketing to children speaks to the acceptability of such policies to the government and policy-makers (157) – as does, to some extent, the inclusion of marketing regulations in national strategies and action plans. For example, 40% of the 167 participating countries in the most recent global nutrition policy review (GNPR2) reported including the regulation of food marketing to children as an action area in national nutrition policies (157). However, few countries have implemented comprehensive policies to restrict food marketing to children (157, 158). Forty-two countries reported in the GNPR2 that they have measures in place, which included guidelines or codes (voluntary or mandatory), with few integrated into national law. Legal instruments and their contents varied greatly across the countries that are implementing policies to restrict food marketing to children (157).

The results of the targeted search for government reports included draft or final government documents that include restrictions, or consideration of restrictions, on food marketing to children from Seychelles (159, 160), South Africa (161, 162), Canada (163–169), the United States (170, 171), Ireland (172, 173), Norway (174–179), the United Kingdom (180–184), Sri Lanka (185–187), Australia (188–192), Fiji (193–197), New Zealand (198–200) and the Philippines (201). The documents included regulations, ordinances, policies, action plans, codes of practice, principles to guide self-regulatory efforts, white papers, strategies and council motions. As with those in the GNPR2, these indicate some degree of acceptability to governments and policy-makers of policies to protect children from the harmful impact of food marketing.

Acceptability is also indicated by other government reports. For example, a New Zealand Government response from the ministers of health and of food safety to a food industry taskforce report on addressing factors contributing to obesity placed priority on the need to “progress focused action” on “limiting advertising, marketing and sponsorship related to energy-dense, nutrient poor food and beverages” (202). In Canada, a 2016 report of the Standing Senate Committee on Social Affairs, Science and Technology recommended that the federal government “design and implement a prohibition on the advertising of foods and beverages to children” (203). A Canadian Government response to the report from the ministers of health and of sport and persons with disabilities noted

that a mandate letter from the Prime Minister to the Minister of Health included “commitments to introduce restrictions on the commercial marketing of unhealthy food and beverages to children” (204). In the United Kingdom, the response of the London Assembly to the draft London Food Strategy included strong support for a proposed ban on advertisements for “unhealthy” food and beverages on the Transport for London estate, although it was noted that support varied by political orientation and that some opposed the ban (205). In the United States, in a 2011 hearing before two subcommittees of the House of Representatives Committee on Energy and Commerce on whether voluntary government restrictions could improve children’s health, representatives’ views on preliminary proposed nutrition principles to guide industry self-regulatory efforts varied considerably (206).

In Australia, according to a 2011 Parliamentary Library research paper, acceptability of restrictions on food marketing among government stakeholders varied according to political orientation (207). Whereas some government stakeholders appeared to prefer self-regulation as the “principle means” of addressing advertising to children, others preferred, and attempted to introduce, a ban on “junk food” advertising on television during children’s viewing hours. For example, one of the attempts was the Protecting Children from Junk Food Advertising (Broadcasting Amendment) Bill in 2008. However, this was considered “premature” at the time, as the National Obesity Strategy was still under development (208). A 2009 report of the House of Representatives Standing Committee on Health and Ageing noted that the committee supported “the argument that marketing of unhealthy products to children should be restricted and/or decreased” but favoured a “phased approach” and noted that “self-regulation may prove successful through the reduction of advertisements for unhealthy food products on television during children’s prime viewing times” (209). The committee supported the Australian Government considering “more stringent regulations” if the number of “unhealthy” food advertisements directed at children did not decrease. A 2018 report of the Senate Select Committee into the Obesity Epidemic in Australia recommended that Free TV Australia (an industry body representing commercial television broadcasters) introduce restrictions on “discretionary” food advertising on free-to-air television until 9 pm, and that the government consider introduction of legislation if these restrictions were not voluntarily introduced by Free TV Australia by 2020 (210). Some members opposed any government intervention, while others raised concerns around exclusion of platforms other than free-to-air television and unclear definitions of which foods should be restricted from marketing.

Acceptability to the government and policy-makers of policies to protect children from the harmful impact of food marketing appears to be closely linked to factors affecting the feasibility of such policies (see “Elements that support or hinder development and implementation” under “Factor 5: Feasibility”).

A survey with policy-makers and stakeholders from different policy sectors in 12 EU Member States identified commercial marketing of foods as the greatest barrier to the prevention of childhood obesity (211). The majority of the 187 participants reported that they felt obliged to act on the issue (75.4%), and saw opportunities to increase their efforts (64.6%) (211). Similarly, policy advisers (from government ministries, the private sector and civil society) in Fiji and Tonga identified restrictions on marketing to children as one of the “most promising” policy interventions, which was deemed “likely to be effective, targeted and feasible locally” (212). The most commonly suggested regulatory approach to promote healthier eating environments among senior representatives from state and territory governments, statutory authorities and nongovernmental organizations (NGOs) in Australia was regulation of “unhealthy” food marketing to children. This included restricting television advertising and other types of marketing – on the internet, on billboards and through sports sponsorship – to children (213). More than 80% of the participants in the study would support such policies (213). A study on the views of expert stakeholders (in governments, NGOs

and academia) on how to decrease consumption of SSBs among 0–5-year-old children found that regulating marketing of SSBs was one of the three highest ranking strategies for both health equity and effectiveness (214). A Canadian study on nutrient profile models developed by Health Canada to mitigate the impact on children’s health of marketing of “unhealthy” food reported that Health Canada indicated support for the strictest model, which effectively would block marketing to children of 97% of the food products surveyed in the study (215).

Studies have also identified a number of elements associated with lower or greater acceptability to governments and policy-makers of policies to protect children from the harmful impact of food marketing. These include broad political support, and robust evidence in favour of the policy (216, 217) (see “Elements that support or hinder development and implementation” under “Factor 5: Feasibility”).

### **Acceptability of the intervention to the public and consumers**

Most of the studies identified in the literature search on public acceptability of policies to protect children from the harmful impact of food marketing were conducted in HICs. Based on the retrieved studies, the majority of adults in HICs support or would support restrictions on food marketing to children (45, 46, 75, 77, 82, 84, 218–227). Women were consistently more supportive than men (46, 77, 82, 84, 218–220, 222, 228).

The results of surveys and consultations found via the targeted search for government reports also showed strong support for restriction of food marketing to children. In Australia, the results of a survey included in a submission to an Australian Government inquiry relating to television advertising showed that most respondents were in favour of government regulation of food marketing to children (82%); government regulation of advertising of “unhealthy” foods during television programmes popular with children (89%); and government regulation of use of cartoon characters, media personalities and toys in marketing unhealthy food to children (85%) (229). Similarly, the report of an Australian Capital Territory consultation on promotion and marketing of food and beverages noted “a strong level of support among community respondents for ‘tough’ measures, including regulation, legislation, bans on advertising”; a smaller number of community respondents argued against government intervention (230).

In Canada, a consultation report on restricting marketing of “unhealthy” food to children reported that the proposed approach (which included time-based restrictions on unhealthy food marketing on television, and restrictions on unhealthy food marketing on the internet on websites, platforms and apps popular with children) was “well received by members of the public” who participated in the consultation (231). Similarly, in a 2017 consultation on Canada’s Food Guide, reducing the marketing of foods “high in sugar” to children was one of the approaches to reduce sugar consumption that was considered “very” or “somewhat” useful by the highest number of general public participants (232). In the United Kingdom, according to a report on the consultation on the draft London Food Strategy, the majority (52%) of a representative sample of Londoners supported a ban on all advertisements for “unhealthy” food on the Transport for London estate; 20% opposed a ban, and 29% were undecided (233). Reports also showed support for restrictions on television advertising. The results of a poll relating to a National Food Strategy showed that 74% of respondents “would like a ban on advertising junk food before 9 pm on TV and online” (181). In an online survey in the Isle of Wight, 78% of respondents said “that advertising sweet food products on children’s TV should be stopped” (234).

### **Difference in acceptability among population subgroups**

Studies have found public acceptability of policies to restrict food marketing to children to vary

according to factors such as age, ethnicity and SES. In a French study, support for a statutory regulation that would ban marketing of “excessively fatty, salty and sugary beverages and foods” during television programmes for children or teenagers was positively associated with SES (224). Similarly, a Turkish study found that higher SES was associated with greater acceptability for both a complete ban on marketing to children on television and regulation of such marketing (77). In a United States study, respondents with higher education than an undergraduate degree were most likely to support a policy to prohibit “high-fat, high-sugar food advertising” on media watched by children, but no variation in support according to income was found (84). Hispanics were more likely to support the policy (84). Likewise, another United States study on parents’ support for policies to reduce “unhealthy” food marketing to children and adolescents found that Hispanic and black parents expressed highest support for policies, as did women and parents who identified as liberal or moderate in political orientation (218). In another United States study, the level of support for a ban on the marketing of SSBs on television was also influenced by political orientation (235). Two Australian studies found that the majority of the sampled adults agreed that governments should restrict food advertising to children on television; women and those of higher SES showed the highest levels of support (46, 222). Lower support, although still by the majority, was given by people having overweight or obesity and those who reported that they “don’t think about [it]” when asked about their attitude to the health aspects of their diet (222). In another Australian study, the majority (86.8%) of parents supported a ban on television advertising of “unhealthy” foods during children’s viewing times, whereas fewer (37.3%) supported a ban on television advertising of all foods during these times – support for a ban on advertising of all foods was associated with older age, higher educational attainment and fewer household televisions (227). The majority of sampled adults in another Australian study agreed that promotion of fast foods, and sponsorship by fast food companies at community events was inappropriate – again, women were more likely to agree with the message than men, as were those with a university degree compared with those with no university degree (220). The sporting community, including officials from sports clubs and regional associations, and parents, supported the introduction of regulations to limit sponsorship of both children’s sport and elite sporting teams and athletes by fast food companies (223). Most of the parents and sporting officials who supported sponsorship restrictions thought that government should be responsible for developing and implementing these regulations (223). A United States study found that the odds of supporting restrictions for “high-fat, high-sugar” product advertisements on television were significantly higher for respondents who also supported smoking bans in public settings and bans on trans-fatty acid use in restaurants (226). A study from the Republic of Korea identified a similar positive association between support for the ban on tobacco advertisements and bans on “unhealthy” food advertisements on television (236).

Public support for policies to restrict food marketing to children may change over time. For example, a study on the advertising ban for French language television advertising in Quebec reported that the law did not have strong support from a majority of consumers at the time of its implementation in 1980, but a survey of Quebec residents in 2007 indicated that 60% wanted the province’s advertising ban to be applied more strictly (135).

In the United Kingdom, a report on consultation on the draft London Food Strategy found that, among a representative sample of Londoners, support for a ban on all advertisements for “unhealthy” food and beverages on the Transport for London estate varied by population subgroup (233). Support was higher among older Londoners, people without children and women.

### **Acceptability associated with view on food environment**

Perceived negative impact of food marketing has been linked to increased support for policies to reduce food marketing (82–84, 218, 223, 224, 236, 237). For example, in the United States, Hispanic

parents' beliefs that food marketing negatively affected their children were highly associated with support for policies to reduce marketing of "unhealthy" foods (218). Similarly, in Australia, parents who perceived children to be "very" or "slightly" influenced by the sponsorship of sports were most likely to be very supportive of regulations to restrict "unhealthy" food and beverage company sponsorships (223). In the United Kingdom, sampled adults who agreed with the statement "people are overweight because there are so many unhealthy foods around" were significantly more likely to also agree that "the government should restrict advertising and marketing of unhealthy foods" (82). In the Republic of Korea, respondents who reported being exposed to food advertising in the past week and that food advertising "mostly affected" or "strongly affected" their health habits were more likely to support the regulation of food advertising (236). Conversely, framing overweight and obesity as personal responsibility in a study from the United States led to lower support for banning food marketing to children (238). In a study from the Netherlands, participants who perceived themselves to be solely responsible for food choice thought that consumers should not be "told" what is best for them, as that would imply that they were incapable of making their own choices (83).

### **Acceptability of policies to protect children from the harmful impact of food marketing compared with other policies**

A number of studies have compared support for different population-level interventions. A study on the public's support for policy strategies in 29 European countries using 2005 Eurobarometer survey data found that restricting marketing was, on average, the third most preferred option for both improving children's diets and reducing childhood obesity (239). Marketing restrictions to improve children's diets was the first choice of 15.3% of the EU public, with the least support in Lithuania (5.9%) and the highest in the Czech Republic (26.3%). When the objective of marketing restrictions was to reduce childhood obesity, the support was lower (first choice of 13.6% of the EU public) (239). A study from the United Kingdom found higher support for government policies to restrict marketing of "unhealthy" foods than for increases in taxes on the sale of "unhealthy" foods (82). An Australian study examining the extent to which "an informed group of citizens" (a citizens' jury) would support regulatory approaches to addressing childhood obesity found that regulation of food marketing (i.e. regulation of marketing in and around schools, advertising bans, and sponsorship bans at sports events) was less popular than fiscal policies and labelling policies (240). Another Australian study on views on obesity prevention among primary school children found higher support for stronger regulation of advertising during children's television programmes than for a complete ban (75). Also in Australia, support for restrictions on marketing on television was higher than support for controls on food company sponsorship of sports and education programmes (221).

### **Acceptability of the intervention to the public and consumers in low- and middle-income countries**

Evidence on public support in LMICs for policies to restrict food marketing is scarce; only one study and one impact assessment were identified for inclusion in the review. In a study from Viet Nam, less than one quarter of the sampled household food providers agreed that the government should ban marketing of SSBs (241). Additionally, more than one third approved of marketing practices through fast food companies' sponsorships of children's sports or educational programmes, and children's websites (241). One impact assessment of a draft policy on restricting food marketing, including sponsorships of children's events, noted a possible "public outcry" if events stopped following funding limitations resulting from restrictions on marketing (242).

## Acceptability of the intervention to industry

Based on studies identified in the literature search, acceptability to industry of policies to protect children from the harmful impact of food marketing appears to depend on whether such policies are voluntary or statutory. Also, if industry had already implemented self-regulatory codes or voluntary measures ahead of government action, statutory policies to restrict food marketing to children were likely to be less acceptable. This section is closely linked to the section “Elements that support or hinder development and implementation” under “Factor 5: Feasibility”.

A wide range of literature reports on industry opposition to government action on developing or implementing policies to restrict food marketing to children (216, 243–249). For example, the food industry in Mexico strongly opposed government regulations to restrict marketing to children, which resulted in a self-regulatory code (216). A case study from Chile on the development and implementation of a statutory regulation on advertising and labelling highlighted how the food industry, throughout the development process, “overtly expressed its disagreement with the regulatory effort” (244). Chilean food companies argued that the law violated freedom of expression, disregarded the principle of self-responsibility and interfered with property rights (244, 247). A qualitative study from the United Kingdom examining stakeholder views on responsible food marketing found that retailers and manufacturers were the most likely to query the legitimacy of developing and implementing a standard to moderate commercial marketing practices (246). In Spain, a qualitative study with key stakeholders from different sectors found that the food and advertising industry considered the current national self-regulatory system adequate to protect children’s health, and “were not in favour of any other stronger form of regulation” (248). In the Philippines, food companies were found to use existing relationships with schools to promote their brands and compromise the establishment of a stronger food policy agenda that would include limiting marketing to children (249), claiming that the proposed policy had low acceptability.

Voluntary or self-regulatory measures initiated by industry can be considered a strategy to prevent the introduction of strong, legally enforceable government regulations (120, 122, 217, 250–252). For example, an Australian case study found that industry proactively implemented self-regulatory codes on marketing to children, just before or during state government developments on the same issues (252). Self-regulatory codes were seen by some advocates and academics as an effective strategy to delay the adoption of regulatory interventions (252). Similarly, in South Africa, industry responded with a voluntary pledge when the government in 2007 developed draft guidelines to prohibit advertising of “non-essential” foods to children under 16 years of age (251).

Various documents identified in the targeted search for government reports provided further information about the acceptability to industry of policies to protect children from the harmful impact of food marketing. In Ireland, in a response to a 2019 public consultation on regulation of harmful online content and the implementation of the revised Audiovisual Media Services Directive, the Advertising Standards Authority for Ireland (a self-regulatory body financed by the advertising industry) was of the view that legislation “should provide a role for effective advertising self-regulation” including for “foods defined as HFSS” (253). Similarly, in Norway, in a 2012 letter to the Department of Health in relation to a draft regulation to restrict food marketing to children, the American Chamber of Commerce in Norway noted that it saw “enhanced self-regulation” as an effective tool, and that the draft regulation should be withdrawn or postponed “until a better and more realistic alternative is in place” (254).

In Canada, a 2011 report on a national dialogue on healthy weights stated that industry participants generally disagreed with stronger government regulations for marketing and advertising (255). A 2016 report of the Standing Senate Committee on Social Affairs, Science and Technology similarly noted that food industry representatives argued that “compliance with the current voluntary code



designed and enforced by the industry was a sufficient control on advertising to children” (203). A 2017 consultation report on restricting marketing of “unhealthy” food to children reported that industry representatives who participated in the consultation were, for the most part, “not supportive” of the proposed approach. This approach included time-based restrictions on marketing of unhealthy food on television, and restrictions on marketing of unhealthy food on the internet on websites, platforms and apps popular with children. Industry representatives preferred the use of an audience threshold (231).

In submissions to Australian Government inquiries related to obesity, outdoor advertising and television advertising, the food, advertising and commercial broadcasting industries generally supported self-regulatory approaches and/or opposed further regulation of advertising (208, 209, 256-261). For example, a submission from the National Association of Retail Grocers of Australia (an organization representing the independent retail grocery sector) to the Senate Standing Committee on Community Affairs regarding the Protecting Children from Junk Food Advertising (Broadcasting Amendment) Bill 2008 considered the proposed legislation “unnecessarily restrictive and superfluous” (256). A submission to the committee from the Australian Association of National Advertisers stated that “the imposition of legislation as proposed ... could significantly reduce business efficiency, while increasing marketing costs to companies and retail prices to consumers without demonstrating any improvement in the health of Australian children” (257). According to a report of the committee, the Australian Food and Grocery Council (an organization representing the food, beverage and grocery manufacturing industry) “indicated that it was appropriate to have a mix of regulation and self-regulation for food advertising and argued that industry ‘has a strong record in applying self-regulatory measures in the advertising space’” (208). A report of the 2009 House of Representatives Standing Committee on Health and Ageing inquiry into obesity in Australia similarly stated that the advertising and food industries argued that government regulation of advertising was not required, because self-regulatory measures were already in place. However, a representative of the Australian Food and Grocery Council “acknowledged if self-regulation failed then the government could impose stronger regulations” (209). In submissions to a 2011 inquiry by the House of Representatives Standing Committee on Social Policy and Legal Affairs into the regulation of billboard and outdoor advertising, the Australian Food and Grocery Council recommended that the current self-regulatory approach be maintained, arguing that industry codes were “effective regulatory measures that can address community concern in a number of areas without the need for full regulation of food and beverage advertising that can impose unnecessary costs on industry and increase response time to stakeholders” (258, 259). In a 2015 submission to an Australian Capital Territory consultation on promotion and marketing of foods and beverages, the Australian Food and Grocery Council again emphasized current self-regulatory approaches in Australia, describing these as “examples of very successful self-regulatory approaches” (260). The council stated that it supported measures that are “evidence-based providing a high degree of confidence that they will be effective at addressing a clearly defined issue” and “practical for industry to implement”. This was followed by a statement that “the evidence supporting the contention that advertising per se in any arena, or medium, is detrimental to the health of children is sparse, and certainly not conclusive”. Free TV Australia (an industry body representing commercial television broadcasters) similarly argued against further television advertising restrictions in its submission to the 2018 Senate Select Committee into the Obesity Epidemic in Australia, on the basis of a “lack of evidence demonstrating causality between advertising and obesity in the Australian context”, the protections offered by the current regulatory framework, and child audience figures for live television (261).

In New Zealand, a 2018 food industry taskforce report to ministers of health and food safety on addressing factors contributing to obesity recommended a range of self-regulatory or voluntary arrangements related to food marketing (262). These included amending the Advertising Standards



Authority's self-regulatory Children and Young People's Code to restrict fixed-site outdoor advertising of "HFSS" foods and beverages within 300 metres of primary and intermediate schools; a review with television broadcasters of opportunities to expand afternoon viewing restrictions (before 6 pm) on "HFSS" foods and beverages; and pre-vetting of new advertisements that may have high attraction or appeal to children. The report also recommended that industry work with the ministries of health and education to develop a policy on school sponsorship.

### **Sociocultural acceptability**

Sociocultural acceptability of policies to protect children from the harmful impact of food marketing is linked to the values the affected population holds in relation to the health outcomes sought (see "Factor 1: Values").

An Australian study on attitudes of the sporting community towards restricting sponsorship of children's sports by fast food companies identified concern about the implications of such restrictions on the cost of sports participation and the viability of community sports clubs (223). Although sponsorship contributes less than a quarter to overall sports club revenue, with the contribution from food and beverage companies being substantially less (263), the study highlighted the need to ensure funding support for sports following sponsorship restrictions (223). This could ensure greater acceptability of a policy to restrict sponsorships of sports events.

### **Environmental acceptability**

One impact assessment examining the environmental acceptability of policies to protect children from the harmful impact of food marketing was identified (102). The 2019 impact assessment for proposed restrictions on television and online advertising of "HFSS products" in the United Kingdom stated that "there is no evidence to suggest that a restriction on HFSS advertising will have a significant impact on the environment". No further details of the assessment were available in the publicly available impact assessment.

# Factor 5: Feasibility

This section presents a narrative synthesis of the literature identified to assess the feasibility of policies to protect children from the harmful impact of food marketing. Separate searches were conducted for the following criteria: development and implementation; monitoring and enforcement; and impact on health systems, food systems and the policy environment. For the purpose of this review, “feasibility” was not assessed as a clear-cut “yes” or “no”, but instead treated as a continuum – barriers to, and facilitators of, development, implementation, monitoring and enforcement of policies to protect children from the harmful impact of food marketing can make the policy action more or less feasible. This section takes the form of a thematic analysis, where barriers and facilitators are grouped in themes identified and emerging from the literature.

## Elements that support or hinder development and implementation

The existence of policies to restrict food marketing to children in some countries speaks to the overall feasibility of such policies (157). However, many countries have not (yet) developed or implemented such policies (157). A range of studies were identified that described facilitators of, and challenges or barriers to, the development and implementation of policies to restrict food marketing to children – thus affecting the overall feasibility of this policy action. Facilitators included strong political leadership, supporting evidence, intersectoral collaboration and community support (216, 243, 244, 246, 264). Challenges or barriers included complexity of the regulatory processes, conflicting interests, lack of financial and human resources, industry interference, a weak evidence base, and ambiguous categorization of, or lack of criteria for, FNABs to be restricted or banned (37, 99, 211, 213, 216, 243, 244, 246, 249, 252, 264).

## Supporting evidence, policy scope and definitions

Two Australian studies identified a weak evidence base to support regulatory interventions as a significant barrier to development and implementation (252, 264). The “absence of evidence” rationale that has been consistently used to defer decisions on regulatory interventions suggested that political priority was more likely to emerge when an “evidence-informed and practice-based” rather than strictly “evidence-based” approach to policy was adopted – that is, active policy experimentation and evaluation rather than inaction (252). A qualitative study from the United Kingdom examining stakeholder<sup>1</sup> views on developing a standard for responsible food marketing found that applying evidence would be one of the most critical aspects in design and implementation (246).

Defining marketing, achieving consensus on what “marketing directed to children” entails (including defining “child”) and deciding which FNABs should be restricted have also been reported as challenges to the development and implementation of policies (122). For example, a case study from Chile concluded that the most critical aspect of the law to restrict advertising and implement a front-of-pack labelling (FOPL) scheme was how to define “unhealthy” foods, since this definition would require amendment of existing national legislation, and the two aspects of the law (labelling and restricting advertising) were closely linked to this definition (244).

<sup>1</sup> Stakeholders interviewed in the study included public health policy-makers, quasi-autonomous NGOs, trade associations whose remit included food marketing, consumer advocacy organizations, private marketing services whose business portfolios included FNAB marketing, and representatives of retail and food processing/manufacturing.

## Stakeholder engagement and coordinated action

In Mexico, collaboration with stakeholders was an important element to make policy development feasible, whereas failure to discuss early initiatives with stakeholders led to lack of support for the policies (216). A series of small group meetings to present the recommendations of an expert panel were beneficial in obtaining valuable feedback, and building consensus and support for marketing restrictions (216), thus increasing the feasibility of development and implementation. Two studies highlighted general community support as an important factor in the policy development process (216, 264). A qualitative study from the United Kingdom examining stakeholder views on developing a standard for responsible food marketing concluded that a strong leadership role by policy-makers would be of critical importance in the development and implementation process (246). Specific challenges for the development and implementation of restrictions on digital marketing include the internet's "inherent borderless nature" and the potential for significant cross-border marketing communication; coordinated action between countries is thus vital for the feasibility of any national policy to restrict digital marketing (120, 122).

## Conflicting interests, industry interference and different regulatory approaches

A wide range of literature has identified industry opposition and interference as major barriers to the development and implementation of policies to protect children from the harmful impact of food marketing. This section is closely linked to the section "Acceptability of the intervention to industry" under "Factor 4: Acceptability".

The search showed that voluntary actions or self-regulation by industry sometimes occurred in anticipation of government regulatory action (99). For example, a study from South Africa reported that draft guidelines were developed by the government in 2007 to prohibit advertising of "non-essential" foods to children under 16 years of age. The draft guidelines were shelved when food companies responded with a voluntary pledge that had limited scope and no specific commitments (251). A policy survey in a review of obesity prevention interventions by the OECD concluded that governments were often reluctant to use regulation because of the complexity of the regulatory process, the enforcement costs involved and the potential to spark confrontation with industry (99). A case study on factors generating or hindering political priority for regulation of marketing (and content labelling and pricing) of "energy-dense foods and beverages" in Australia between 1990 and 2011 found that the food, beverage and advertising industries powerfully shaped these priorities (252). The power stemmed from the industries' economic importance as large industries and employers, their reach into food systems, and their pre-emptive adoption of self-regulation (252). Likewise, another Australian study identified the power of the food industry as a barrier to government regulation of marketing on television (264). A study from the Philippines found that external actors, particularly from large food companies, compromised policy processes and agenda-setting (249). In Australia, senior representatives from state and territory governments, statutory authorities and NGOs perceived uptake and enforcement as barriers to government regulation of marketing to children (213). Other barriers to change were government agencies working in "silos", economic considerations prevailing over health concerns, and the lobbying power and influence of the food industry on government decision-making (213). A case study from Chile on the development and implementation of a statutory regulation on labelling and advertising highlighted how the food industry, throughout the development process, "overtly expressed its disagreement with the regulatory effort" (244). Chilean food companies argued that the law violated freedom of expression and disregarded the principle of self-responsibility (244). In the Pacific, a review identified the implementation of marketing restrictions to be a "sensitive and difficult task", given the dominance of certain food distributors (265). Similarly, food industries in the African region were reported to

“exert undue influence on government policy both directly and through their affiliates by taking advantage of weak industry regulation” (266).

A submission from a group of academics to a 2018 Senate inquiry into obesity in Australia suggested that the inclusion of food industry representatives in obesity taskforces and development of policy strategy had a “consequence of perpetuating a focus on individual choices and keeping regulatory policies off the agenda” (267). Similarly, the 2014 annual report of the Consumer Council of Fiji stated that draft legislation to regulate the advertising and marketing of FNABs to children was not in place in Fiji “due to strong commercial interest” (268).

### **Elements that support or hinder monitoring, evaluation and enforcement**

Monitoring, evaluation and enforcement are key elements for regulatory action, including policies to protect children from the harmful impact of food marketing. As integral components of the policy, they affect overall feasibility of a policy action (30, 120, 269, 270). Literature has identified a range of issues related to monitoring, evaluation and enforcement of policies to restrict food marketing to children. Challenges include lack of transparency and accountability (271, 272), conflicting interests in reporting of compliance (273), methodological difficulties (274), and inadequate human and financial resources (249). For example, an Australian study concluded that current self-regulations were not effectively implemented, were consistently breached and were inadequately monitored, as a result of lack of transparency (271). A study from the Philippines also highlighted the lack of transparency and weak accountability in a national pledge to limit marketing to children (249). The same study concluded that lack of human and financial resources for monitoring and policy enforcement limited the potential impact of schools’ policies to restrict food marketing (249). An Australian study on industry self-regulation of television advertising emphasized that a system of independent monitoring is important for both transparent evaluation and public accountability (272). Similarly, in Spain, a qualitative study with key stakeholders from various sectors found that government representatives, public health advocates, and nutrition and health experts all thought that external agencies should ensure compliance with the national self-regulation of responsible marketing (248). In Chile, a process summary of the national regulation of advertising restrictions and FOPL reported that implementation of a monitoring and enforcement system posed methodological difficulties because the policy was a “new paradigm in public health”; as well, there was a lack of experiences and evidence from other countries (274). Another study from Latin America found that marketing restrictions were usually associated with penalties for noncompliance, but that actual monitoring strategies were less frequent than intended (275). The study found that Chile and Ecuador were the only countries in the region that imposed sanctions on noncompliance with advertising restrictions within the school environment (275). A report on digital marketing concluded that, to support effective oversight and enforcement of policies to restrict marketing, the issues to be considered in imposing fines (such as the nature, gravity and duration of the infringement) should be clearly elaborated (122). The report also found that knowledge of the level of monetary penalties helped draw attention to monitoring and enforcement procedures, citing the EU General Data Protection Regulation as an example (122).

### **Impact on health systems, food systems and the policy environment**

Although numerous studies emphasize the need for a comprehensive or “systems” approach to promoting healthier food environments (including policies to protect children from the harmful impact of food marketing), limited evidence exists on the impact that policies may have on health systems, food systems and the general policy environment (276).

It is difficult to predict or measure whether combinations of interventions create synergies that translate into an overall effect that is larger than the sum of the effects of individual interventions, or whether the opposite is true (99). As well, a single intervention may have effects that go beyond the outcome measure of that intervention. For example, an examination of the effects of a fast food advertising ban for French-language television advertising in Quebec demonstrated that individual-level reductions in exposure to advertising could not fully account for the effect of the ban (37, 135). The study found that the reduction in purchasing propensity was attributable to the ban's effects on the sociocultural environment (37, 135). Similarly, a review on the sociocultural impacts of food marketing and policy implications found “provisional but promising evidence” that food marketing can influence food behaviours by moderating sociocultural elements of the food environment (37).

Two modelling studies have sought to measure the impact of multiple interventions. Using data from five countries (Canada, England, Italy, Japan and Mexico), an OECD study developed a micro-simulation model to assess the potential impact expected from combining multiple interventions in a prevention strategy targeting different populations and age groups. Five interventions were used: food labelling, food advertising self-regulation, school-based intervention, mass media campaign, and physician–dietician counselling in primary care. The study found that health impacts (in life-years and DALYs) of the combined interventions were up to twice as large as those attributable to the single most effective intervention (intensive counselling in primary care) (99). Another large modelling study also found that a multiple-intervention strategy<sup>1</sup> would achieve substantially larger health gains than would individual interventions, often with an even more favourable cost-effectiveness profile (100).

Of interest is the impact that policies to protect children from the harmful impact of food marketing may have on other measures to promote healthy diets. For example, the authors of a study from the Republic of Korea found that food manufacturers had altered some of their products after the implementation of restrictions on television advertising of FNABs. Thus, the authors concluded that the marketing restrictions “contribute[d] to improvement of the food environment for children's health” (277). “FNAB product change (portion size, food reformulation, portfolio mix)” is an outcome examined in the systematic review on the effects of food labelling, and is therefore not discussed further here.

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<sup>1</sup> The interventions included in the model were health information and communication strategies that improve population awareness about the benefits of healthy eating and physical activity; fiscal measures that increase the price of unhealthy food content or reduce the cost of healthy foods rich in fibre; and regulatory measures that improve nutritional information or restrict the marketing of unhealthy foods to children.

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# Annex 1. Framework for review of contextual factors

Factor	Criteria	Guidance questions	Total number of studies included for each criterion
1. Values	Relative importance the population (those affected by exposure and/or outcome) assigns to the intervention health outcomes	What are the values people affected by the intervention assign to the intervention health outcomes?	58
2. Resource implications	Ratio of costs and benefits of the intervention, including costs of the intervention in the long and short terms, and the economic impact of the intervention on national and global economy	What is the value for money of the intervention in terms of cost-benefit/cost-effectiveness/cost-utility, including the impact on national/global healthcare costs in the short term and long term, and the impact on government revenue (including the use of additional revenue; and issues of noncompliance, inflation, black market or cross-border trade)?	9
3. Equity and human rights	Universal human rights standards	Is the intervention in accordance with human rights standards, and what is the impact of the intervention on human rights (including the ability to make a competent, informed and voluntary decision)?	41
	Impact on (health) (in)equity and/or (health) (in)equality	What is the impact of the intervention on (health) (in)equity and/or (health) (in)equality, including food and nutrition security (unequal and/or unfair access to food)?	19

		Is the intervention sensitive to sex, age, ethnicity, religion, culture, language, sexual orientation/ gender identity, disability status, education, SES, place of residence (including issues of social stigma, household expenditure, financial regressivity, and jobs/ employment)?		
4. Acceptability	Acceptability to stakeholders	Is the intervention acceptable to governments and policy-makers; the public and consumers; and industry?	116	
	Sociocultural acceptability	Is the intervention acceptable to, and in agreement with, existing cultural and religious norms and beliefs?	2	
	Environmental acceptability	Is the intervention aligned with environmental goals and considerations?	1	
5. Feasibility	Development and implementation	What is the feasibility of developing and implementing the intervention (including barriers and facilitators)?	19	
	Monitoring and enforcement	What is the feasibility of monitoring and enforcement of the intervention (including barriers and facilitators)?	12	
	Impact on health systems, food systems and policy environment	Does the intervention have an impact on change within existing health or food systems (including resulting in additional interventions to improve the nutrition and health of populations)?	6	

## Annex 2. Summary tables

To inform decisions on the strength of the recommendation to be formulated on policies to protect children from the harmful impact of food marketing, a summary table for each factor was prepared based on the identified literature for that factor. The summary tables were developed to closely align with the GRADE evidence to decision tables.

### Summary table for Factor 1: Values

<b>Noncommunicable diseases</b>	There was no variability in values on diet-related NCDs in the identified studies. Diet-related NCDs were perceived as being negative.
<b>Overweight/obesity (body weight status)</b>	<p>Values on body weight status varied by study population.</p> <p>In HICs, overweight and obesity are generally perceived negatively and as a serious health problem.</p> <p>In HICs, women (more so than men) perceive overweight/obesity (especially childhood obesity) to be a serious health concern.</p> <p>In HICs, people of lower SES perceive overweight/obesity to be a greater health concern than people of higher SES.</p> <p>Many studies from LMICs show that overweight/obesity is perceived as indicating good health, or interpreted as being “normal weight”.</p> <p>In some countries that have perceived overweight/obesity as indicating good health, values are changing, and normal weight BMI is increasingly considered healthy.</p>
<b>Dental caries/erosion</b>	There was no variability in values on dental caries/erosion in children. Dental caries/erosion were perceived as being negative.

### Summary table for Factor 2: Resource implications

<b>Ratio of costs and benefits for the intervention, costs of the intervention in the long and short terms, and the economic impact of the intervention on national and global economies</b>	<p>All identified (modelling) studies found policies to restrict food marketing to children to be cost-effective in the long term (generally after 50 years).</p> <p>Policies to restrict food marketing to children may take a long time to make an impact and reach favourable cost-effectiveness ratios.</p> <p>The cost of a policy to restrict food marketing to children, the expected health gains, the expected healthcare costs savings and cost-effectiveness ratios depend on country context, and design and regulatory nature of the policy.</p>
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### Summary table for Factor 3: Equity and human rights

<b>Accordance with human rights standards</b>	<p>Policies to restrict food marketing to children seem to be in accordance with human rights standards, and do not impede freedom of expression of the media. Conversely, failing to restrict food marketing to children may jeopardize fulfilment of the CRC.</p> <p>Studies indicate a growing momentum for a human rights lens to be used to address malnutrition and diet-related NCDs, including interpreting and treating food marketing to children as a human rights issue.</p>
<b>Impact on health equity</b>	<p>There is limited evidence on the impact on health equity of policies to restrict food marketing to children. However, differential exposure of children of different SES to the extent and/or nature of marketing (children of lower SES are more exposed to food marketing than children of higher SES) can instigate or worsen inequities. By correcting this differential exposure, regulations to restrict marketing can limit inequities in health.</p>

### Summary table for Factor 4: Acceptability

<b>Overall acceptability</b>	<p>Acceptability strongly depends on the nature of the regulatory measure and the comprehensiveness of the proposed policy to restrict food marketing to children.</p>
<b>Government</b>	<p>Accounts of countries with policies or action plans to restrict food marketing to children testify to acceptability of such policies among governments and policy-makers.</p>
<b>Industry</b>	<p>Voluntary policies to restrict food marketing to children appear to be more acceptable to industry than statutory policies.</p>
<b>Public</b>	<p>Policies to restrict food marketing to children are largely acceptable to the public (including consumers and parents) in HICs. High acceptability is linked to high SES, and women are consistently more supportive of policies to restrict food marketing to children than men.</p> <p>Evidence on acceptability to the public in LMICs of policies to restrict food marketing to children is inconclusive, as a result of the lack of literature identified in the review.</p>
<b>Sociocultural acceptability</b>	<p>Limited evidence was found specifically on sociocultural acceptability of policies to restrict food marketing to children. However, sociocultural acceptability appears to be closely linked to factors influencing general acceptability to the public and consumers.</p>
<b>Environmental acceptability</b>	<p>One impact assessment for proposed restrictions on television and online marketing of “HFSS products” stated there was no evidence to suggest that such restrictions would have a significant impact on the environment.</p>

## Summary table for Factor 5: Feasibility

<p><b>Overall feasibility</b></p>	<p>The existence of policies to restrict food marketing to children in some countries (including industry-led, government-led or government-endorsed policies, either voluntary or statutory) speaks to the overall feasibility of such policies. However, many countries have not (yet) developed or implemented any policies to restrict food marketing to children. Elements that make policies to restrict food marketing to children more or less feasible are summarized below, under “Development and implementation” and “Monitoring and enforcement”.</p>
<p><b>Development and implementation</b></p>	<p>Challenges/barriers to development and implementation:</p> <p>Complexity of regulatory processes; conflicting interests; lack of financial and human resources; industry interference; a weak evidence base; ambiguous categorization of, or lack of criteria for, FNABs for which marketing is to be restricted or banned.</p> <p>Opportunities/facilitators for development and implementation:</p> <p>Strong political leadership, supporting evidence, intersectoral collaboration, community support.</p>
<p><b>Monitoring and enforcement</b></p>	<p>Frameworks or programmes for monitoring and evaluation (and, when relevant, enforcement) are key elements in health policy, including policies to restrict food marketing to children. The need for, and existence of, such programmes affects overall feasibility of a policy action.</p> <p>Challenges/barriers to monitoring and enforcement:</p> <p>Lack of transparency and accountability, conflicting interests in reporting of compliance, methodological difficulties, inadequate human and financial resources.</p> <p>Opportunities/facilitators for monitoring and enforcement:</p> <p>Clear guidelines and protocols, independent monitoring, transparency, monetary penalties.</p>
<p><b>Impact on health systems, food systems and the policy environment</b></p>	<p>Evidence is limited for this criterion. However, a large modelling study found that a multiple-intervention strategy (including health information and communication strategies that improve population awareness about the benefits of healthy eating and physical activity, fiscal measures that increase the price of unhealthy food content or reduce the cost of healthy foods rich in fibre, regulatory measures that restrict marketing of unhealthy foods to children, and mandatory food labelling) would achieve substantially larger health gains than would individual interventions, often with an even more favourable cost-effectiveness profile.</p>









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